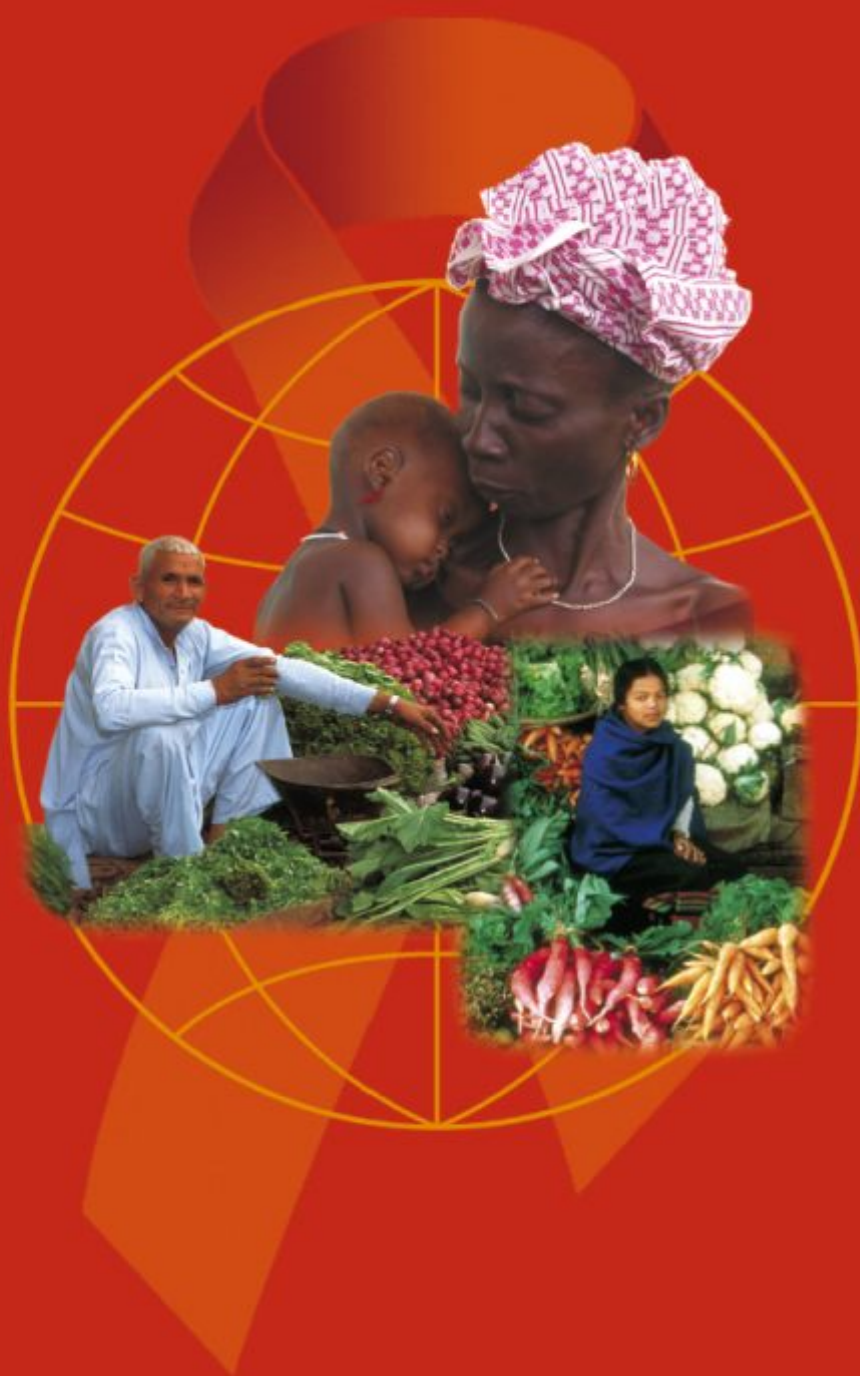


Nutritional care and support for people living with HIV / AIDS

A training course



**World Health
Organization**



**Food and Agriculture Organization
of the United Nations**

Participants' manual

**Nutritional care and support
for people living with HIV/AIDS
A training course**



**World Health
Organization**



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It is expected that the material will be revised by 2015.

Introduction

Nutrition refers to how food is handled, prepared, shared, eaten and ultimately utilized by the body. Foods contain different nutrients that are essential for various body functions, such as: the Energy required for breathing; movement, work and temperature control; growth, building, replacement and repair of the body tissues; protecting and fighting against infection and helping to recover from illnesses. Good nutrition is, therefore, a key factor for the maintenance of good health and quality of life for all people.

Malnutrition can result from inadequate or excessive intake of one or more nutrients. Poor nutrition reduces a person's ability to work and be active. It also weakens the immune system leading to frequent illnesses, poor growth and development in children, and an inability to replace and repair body cells and tissues, resulting in severe weight loss. Excessive intake of food leads to excessive weight gain associated with high risk of obesity, heart diseases and high blood pressure.

For people living with HIV (PLHIV), poor nutrition worsens the effects of HIV by further weakening the immune system. This may lead to a more rapid progression of the disease. Moreover, HIV interferes with the ability to access, handle, prepare, eat and utilize food, thus increasing the risk of malnutrition among people living with HIV. Food and nutritional intake can affect adherence to antiretroviral drugs (ARVs) as well as their effectiveness. Food insecurity and inadequate knowledge of good nutrition can thus, impede management of the disease, particularly in resource-constrained settings where HIV is prevalent and health care services remain inadequate.

Good nutrition, on the other hand, gives strength, helps to maintain and improve performance of the immune system thereby protecting the body against infection and delaying progression of the disease. Good nutrition cannot cure AIDS or prevent HIV infection; however, people living with HIV who are well-nourished are stronger and better able to fight infections. Good nutrition will also complement and ensure effective antiretroviral treatment.

Nutritional care and support, which includes counselling, education, information-sharing and provision of food is therefore, a fundamental component of a comprehensive package of care and support for all PLHIV. Ensuring that PLHIV have access to food of adequate quantity and quality at the individual and household levels is a critical part of their health care. Maintaining a varied and healthy diet can help improve the body's utilization of nutrients thereby contributing to the health of people living with HIV. Nutritional care and support must be started at the early stages of the infection in order to prevent weight loss and malnutrition. Such care and support is often provided by a variety of people including

family members, nurses, doctors, dieticians, extension workers, volunteers, community support workers and others. In this course, we refer to these people as service providers and caregivers.

Why is this course needed?

Effective management of the food and nutrition implications of HIV requires adequate skills and capacity at the local level. Especially in countries and regions with limited resources, there is a recognised need to develop the capacity of community-level health service providers and caregivers in promoting good nutrition as an important component of improving the health and quality of life of PLHIV.

Course aims and purpose of this manual

This manual is intended for use by the participants attending the Nutrition Care and Support for People Living with HIV course. The course aims to improve knowledge and skills on nutritional care and support among community-level health service providers and other extension workers whose activities may include providing general nutrition information, care and support to individuals or groups of people living with HIV, their household members and communities.

This manual provides up-to-date information that is needed for effective nutrition counselling, care and support for people living with HIV in limited resource settings. The combination of knowledge and communication skills presented will enable participants to provide quality nutrition care and support at various service points, and thereby contribute to improving the nutritional and health status and quality of life of PLHIV.

In addition to providing detailed information to guide participants through each course session, the manual is designed to be used as a reference after the course. It is thus, not essential for participants to take detailed notes.

The information, ideas and skills from the course and this manual can be used in many ways:

- one-to one nutrition counselling of a person living with HIV;
- nutrition education to a group of individuals at clinic or community settings;
- discussing practical suggestions and skills with a group of caregivers;
- sharing the information and skills with work colleagues to increase their knowledge;
- helping oneself or a family member.

However, this manual includes only basic information on communication skills and is not designed to train people to be HIV counsellors. The nutrition information provided is at a general level and people with complex nutrition-related concerns such as diabetes, altered lipid levels and other conditions would need to be referred to someone with more extensive training in nutrition. Ask your course facilitators for any additional or new information on other courses to complement this manual and the course.

Structure of this manual

This manual is divided into 15 sections including: opening and closing sessions, a course review and planning session, and 12 core sessions covering key aspects of nutrition care and support for people living with HIV. The course sessions which form the basic structure of this manual are outlined below.

Course and manual structure	
Opening session	
1.	HIV and nutrition
2.	Introduction to communication skills
3.	Eating wisely
4.	Food safety for people with HIV and AIDS
5.	Improving food intake
6.	Preventing weight loss and promoting physical activity
7.	Nutrition for people on anti-retroviral therapy (ART)
8.	Nutrition for pregnant and breastfeeding women with HIV
9.	Feeding options for infants of HIV-positive mothers
10.	Feeding a child living with HIV
11.	Improving access to food
12.	Use of nutritional supplements and herbal remedies
13.	Course review and action planning
Closing session	

The manual also includes copies of key overhead transparencies and texts for the role-plays, demonstrations and exercises that you will do during the course.

Opening session

Learning objectives

By the end of this session, participants will be able to:

- List the aims and objectives of the course; and
- Refer to glossary of terms used in the course.

1. Introduction

- Infection with Human Immunodeficiency Virus (HIV) causes reduction in the body's natural defence system against diseases and infections leading to the Acquired Immunodeficiency Syndrome (AIDS).
- As the immune system weakens, the body becomes less able to fight infections. Other germs take advantage of this opportunity and cause various illnesses such as pneumonia, tuberculosis, oral thrush and other opportunistic infections further weakening the body.
- When a person starts developing these opportunistic infections he/she has AIDS. The amount of time it takes for the person to advance from HIV infection to AIDS and his/her overall quality of life depends on the general health and nutritional status of the person.
- Good nutrition is important to everyone. A person who is well-nourished may have a better quality of life. He/she is stronger and better able to fight infections. This is true for all people but is especially important for people with HIV who are more susceptible to recurring infections.
- On the other hand, people living with HIV are at a higher risk of malnutrition as HIV increases nutritional needs even during early stages of HIV infection, when no symptoms are apparent. The demand increases significantly during the course of the infection posing additional challenges to people living with HIV and their care providers.
- People living with HIV and their families need care and support. This care and support may be provided by nurses, doctors, dieticians, other health workers, lay counsellors, support workers, families and other people. During this course, we will discuss ways to support people living with HIV to enable them to be better nourished. Food is not a magic solution. It will not stop people dying of AIDS. However, it can help people live longer, be more comfortable and lead lives that are more productive.

2. Course aim

- The aim of this course is to assist community level health service providers and other extension workers to:
 - Improve their knowledge and skills on nutrition care and support for people living with HIV;
 - Understand the importance of using good communication skills when providing nutrition care and support for people living with HIV; and
 - Be able to effectively transfer the key nutrition messages to people with HIV, their family members and the community.

3. Course objectives

- By the end of the training course participants will be able to:
 - Explain the link between nutrition and HIV.
 - Discuss the effects of HIV on nutrition.
 - Describe the benefits of good nutrition for people living with HIV.
 - Demonstrate appropriate communication skills for nutrition counselling.
 - Describe how to manage HIV-related symptoms that reduce food intake.
 - Discuss the basic principles of eating wisely.
 - Discuss food safety for people living with HIV and AIDS.
 - Outline guidelines for preventing weight loss and promoting physical activity.
 - Discuss management of food-drug interactions.
 - Discuss appropriate nutrition for HIV-positive pregnant and breastfeeding women.
 - Discuss feeding options for infants of mothers living with HIV.
 - Discuss feeding children with HIV.
 - Describe the options for improving food access.
 - Evaluate and provide advice about the use of nutritional supplements and herbal remedies.

4. Methodology

The course will include interactive lectures, role-plays, group discussions, individual reading and brainstorming to facilitate exchange of ideas and encourage participants to apply knowledge and skills from the sessions.

-
- Listen carefully to the instructions and guidance provided by your course facilitator(s) throughout the course. The facilitator(s) will let you know at which point you should refer to particular handouts and when/how you are to take part in the various group exercises/ activities and role-plays/demonstration talks during each session.
 - The facilitator(s) should also ask you periodically if you have any questions or require further clarification of any of the material covered.
 - Take special note of this symbol “★” which indicates important points, including ★KEY POINTS★ covered in each session that are clearly highlighted in separate boxes.

5. The story of Sam and Suzi

- The story of Sam and Suzi runs through the course so that you can see how the information applies to individuals.
- You will find the full story of Sam and Suzi in *Annex 1* at the end of this manual.
- Each session contains parts of Sam and Suzi’s story relevant to that session.
- Also to be provided, are three pictures of Sam and Suzi, each illustrating different times in their lives.

6. Glossary of terms

Following are definitions of some of the terms that will be used frequently throughout the course.

Absorption	When food that is eaten is broken down or digested and passes through the gut walls into the bloodstream for use by the body.
AIDS	Acquired immunodeficiency syndrome (AIDS) is the later stage of HIV disease. A person is said to have AIDS when HIV has weakened the body’s immune system to the extent that they develop one or more specific illnesses.
Anti-retrovirals	Drugs used for HIV prophylaxis or treatment that aim to slow or stop the HIV virus from multiplying or increasing in the body. However, these drugs are not a cure for HIV.

Caregivers	Persons who assume responsibility for providing care to those in need. They may be health workers, support workers, community-based care providers, family members and friends, etc.
Dehydration	Excessive (unhealthy) loss of water and salts from the body that often occurs due to diarrhoea or vomiting.
Diet	The customary mix or pattern of food and drink types consumed by a person on a daily basis.
Digestion	The process of breaking down foods into forms our body can use. It begins when we put food in our mouths and continues until it gets into the stomach and finally into the intestines.
Disclosure	When a person with HIV reveals his/her status to other persons. There may be fear of disclosing one's HIV status if the disclosure could result in the person being isolated from his/her family or community, stigmatised, or at risk of physical or psychological harm.
Energy	Can mean the way a person feels, such as when he or she says, "I am full of energy" or "I have no energy." The word energy is also used to describe fuel for the body. All foods can provide energy (fuel) though some foods provide more energy than others.
Food-borne illness	Illnesses caused by eating contaminated food containing harmful pathogens or germs.
Food security	Situation where people, at all times, have access to sufficient, safe and nutritious food that meets their dietary needs.
HIV	Human immunodeficiency virus is one of a family of viruses known as retroviruses. HIV infects and destroys special white blood cells called CD4+ lymphocytes. These cells are an important part of the body's immune system, which is the body's defence against infection. A person HIV-infected or HIV-positive means the person has been tested and the test result shows that the HIV virus is present in his/her body.
Immune deficiency	When the immune system has been weakened and is less able to fight disease. HIV can lead to a range of specific opportunistic infections that take advantage of the weakened immune system.
Immune system	The processes in the body that help resist or overcome infections. These processes need nutrients to work properly.
Malabsorption	Failure to absorb one or more nutrients from the food eaten into the body. This may occur if the: <ul style="list-style-type: none"> • gut wall is damaged; • food moves too quickly through the gut (e.g. in the case of diarrhoea); or • body processes are not working adequately, e.g. if the digestion organs do not produce enough fluids to breakdown foods.
Malnutrition	Condition caused when the body gets too few or too many nutrients causing the body not to function properly. However, the condition of a person receiving too little food is more common - referred to as under nutrition .

Mastitis	An inflammatory condition of the breast, which may or may not be accompanied by infection. It is usually associated with lactation, so it is also called <i>lactational mastitis</i> .
Metabolism	Describes the processes taking place in the body that keep it working properly including the production and utilization of energy.
Nutrients	Nourishing substances or components of food released during digestion and absorbed to be used to promote body functions. Nutrients may be divided into: <ul style="list-style-type: none">• <i>Macronutrients</i> (protein, fats and carbohydrates)• <i>Micronutrients</i> (vitamins and minerals). This course focuses on foods that we eat rather than the individual nutrients that make up these foods.
Nutrition	Broad term referring to processes involved in eating, digestion and utilization of food by the body for growth, reproduction and maintenance of health. It also helps understand the relationship between food and the body.
Nutritional status	The extent to which the individual needs for nutrients are being met. Weight, height and other measures of growth are often used to indicate nutritional status. Clinical indicators, such as levels of nutrients in the blood, urine, bone as well as other areas, are more difficult to measure.
Palliative care	Aimed at relieving the symptoms of an illness, such as pain, stress and nausea, but does not treat the actual illness. In some places, this care is provided in a hospice or by a hospice home care team.
People living with HIV (PLHIV)	A general term used for all people infected with HIV, whether or not they are showing any signs and/or symptoms of infection.
Symptomatic	An observable change in the body that indicates the presence of disease. The opposite of this term is asymptomatic and means that the symptoms of a condition are not present even though a person has disease.
Thrush	Otherwise known as <i>Candida</i> , is a fungal infection that can occur in the mouth or other moist areas of the body. White fuzzy patches may be seen on the tongue and insides of the cheeks. Thrush can result in a very sore mouth and make eating difficult. Treatments can reduce thrush infection.
Viral load	The amount of HIV in the blood of an HIV- positive person. The higher the viral load the higher the risk of disease progressing into AIDS.
Wasting	Loss of body fat and muscle leading to the individual being weak.

Session 1: Links between HIV and nutrition

Learning objectives

By the end of this session, participants will be able to explain the links between nutrition and HIV, including:

- How HIV affects the nutritional requirements of the body;
- How nutritional status affects quality of life;
- The benefits of good nutrition for people living with HIV; and
- The importance of nutrition counselling for people living with HIV.

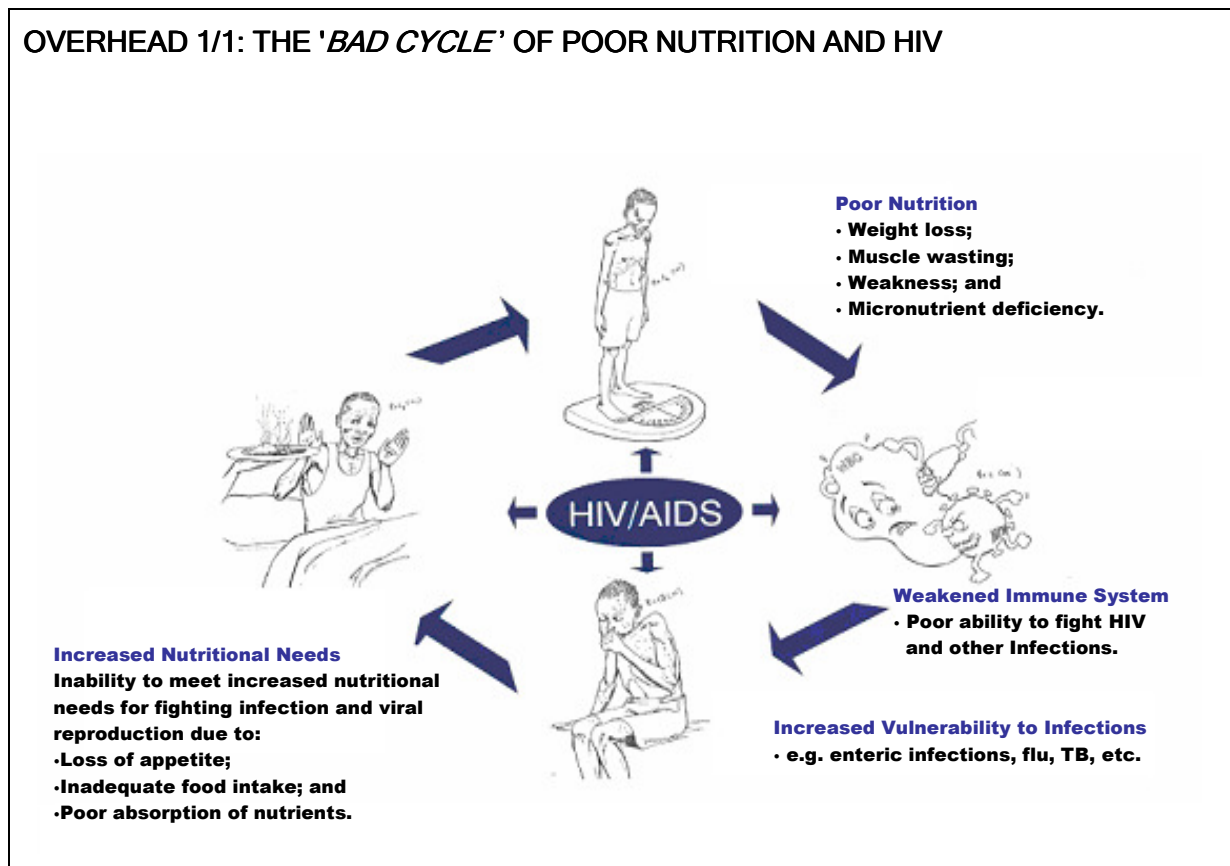
1. Introduction

- Food is important for everyone. It is essential for the proper functioning of the body and the maintenance of good health.
- Food provides nutrients which are used by the body to:
 - Grow and replace cells when they have been damaged.
 - Produce energy for work, movement and warmth.
 - Carry out other body functions such as digestion and metabolism.
 - Protect against and help to recover from disease.
- If the body does not get enough food, it cannot function properly. Even the immune system which is the body's fighting force against all the different diseases will be weakened.
- In a later session, we will talk more about making food choices in order to provide enough nutrients to the body.
- In this session, we will discuss more about the links between HIV and nutrition, specifically:
 - How HIV can affect nutritional status and quality of life;
 - The benefits of nutrition in the care and support for people living with HIV and their families.

2. The links between HIV and nutrition

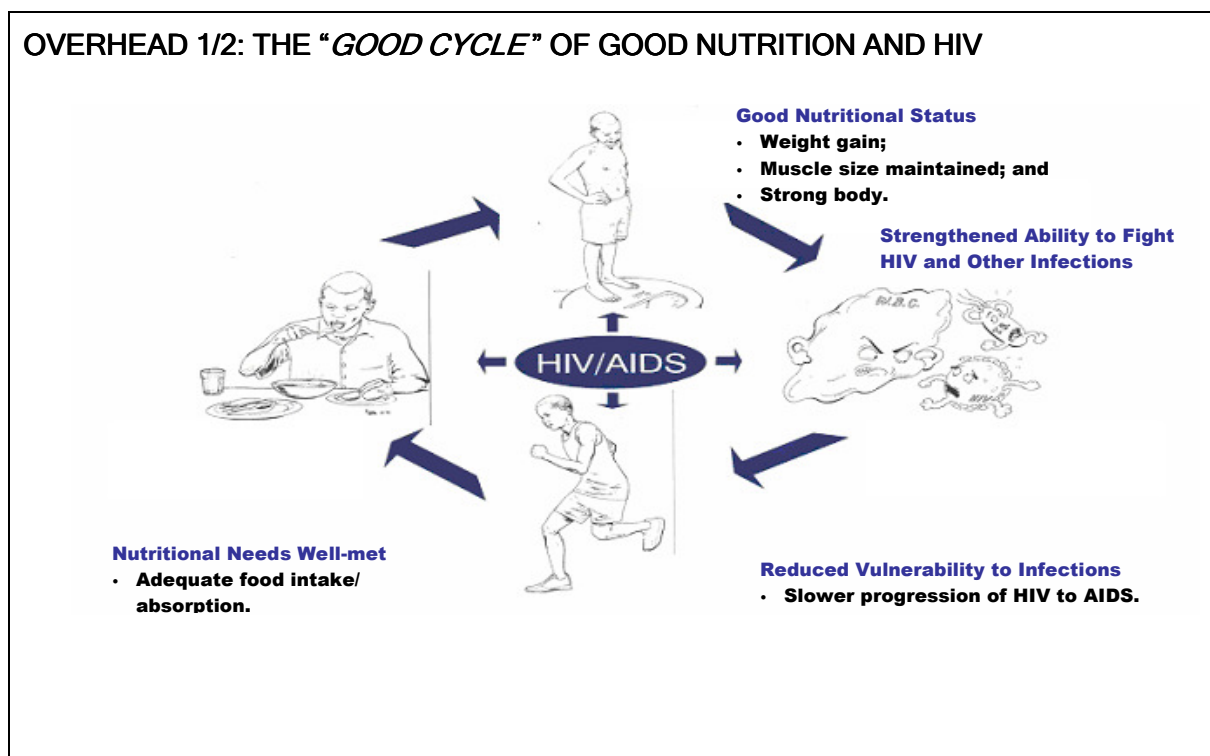
- Poor nutrition quickens the progression from HIV to AIDS while good nutrition slows down the progression from HIV to AIDS. This can be explained by the cyclical link between HIV and nutrition.

OVERHEAD 1/1: THE 'BAD CYCLE' OF POOR NUTRITION AND HIV



- HIV weakens the body's natural defence system against disease and infection; as a result, the body's ability to fight infection is greatly reduced.
- With weakened ability to fight infections, the body becomes vulnerable to infections which normally may have not affected the person. Frequent infections and diseases make the body weaker and accelerate the progression from HIV to AIDS.
- HIV and frequent infections increase the nutrition needs of people living with HIV. However, they may not be able to take enough food to meet these needs. This is usually due to loss of appetite, poor absorption and the changes in the way food is utilized by the body resulting from HIV and frequent infections.

- The poor intake of food leads to loss of weight, body weakness, and malnutrition, which further weakens the body's natural defence mechanism, thus aggravating this 'bad cycle'.
- In the early stages of infection a person shows no visible signs of illness. But later many of the signs of AIDS will become apparent, including weight loss, fever, diarrhoea and other opportunistic infections such as, sore throat and tuberculosis (TB). Poor nutrition may accelerate the onset of these infections.



- The body's defence system is strengthened against disease and infection and the body has enough stores of nutrients. The body can therefore easily respond to infection and delay progression to AIDS.
- The body can better resist infection. This helps people living with HIV to stay stronger and able to eat well and absorb nutrients required by the body.
- When people living with HIV are able to meet their body's food needs, they will not lose weight; they will be able to stay strong and well-nourished.

☆ **KEY POINT** ☆

A well-nourished person has a stronger body to fight infection and cope with HIV.

-
- ☆ The well-nourished body is able to build strength to fight HIV and other infections because the body has enough nutrients stored. The immune system is strengthened even further and the cycle continues.

3. The effects of nutrition on HIV

- The three ways in which HIV can affect the nutritional status of a person are by:
 - Reducing food intake;
 - Lowering food absorption; and
 - Increasing energy requirements.

3.1 Reduced food intake

- Reduced food intake can result from one or more of the following reasons:
 - Difficulties with eating or swallowing because of painful sores in the mouth and/or throat.
 - Altered taste of food, nausea and vomiting.
 - Poor appetite as a result of tiredness, depression and other psychological factors.
 - Less quality and quantity of food in household due to insufficient money, inability to grow crops and/or difficulties in shopping and preparing food.
 - Lack of awareness of the importance of nutrition, especially when recovering from illness.
 - Side effects of medications, including nausea, vomiting, metallic taste in the mouth, diarrhoea and abdominal cramps.

3.2 Lower food absorption

- During digestion, the food we eat is broken down into small parts called nutrients. These nutrients are absorbed through the gut into the bloodstream to be used by the body. Reduced absorption of nutrients can result from one or more of the following reasons:
 - Damage of the gut due to infection and/or the breakdown of cells can result in lower food absorption.
 - Infections such as, diarrhoea make the food pass too quickly through the gut, reducing the time for digestion and absorption.
- Poor absorption can cause difficulty in controlling blood sugar levels, which may lead to diabetes.

3.3 Increased energy requirements

- If food intake and absorption are not sufficient for meeting increased energy needs, muscles are broken down ('muscle wasting').
- In turn, excessive muscle breakdown leads to:
 - Weight loss;
 - Swelling of the feet and/or other parts of the body;
 - Reduced production of saliva and other digestive fluids needed to break down foods into nutrients, which further reduces the absorption of food.

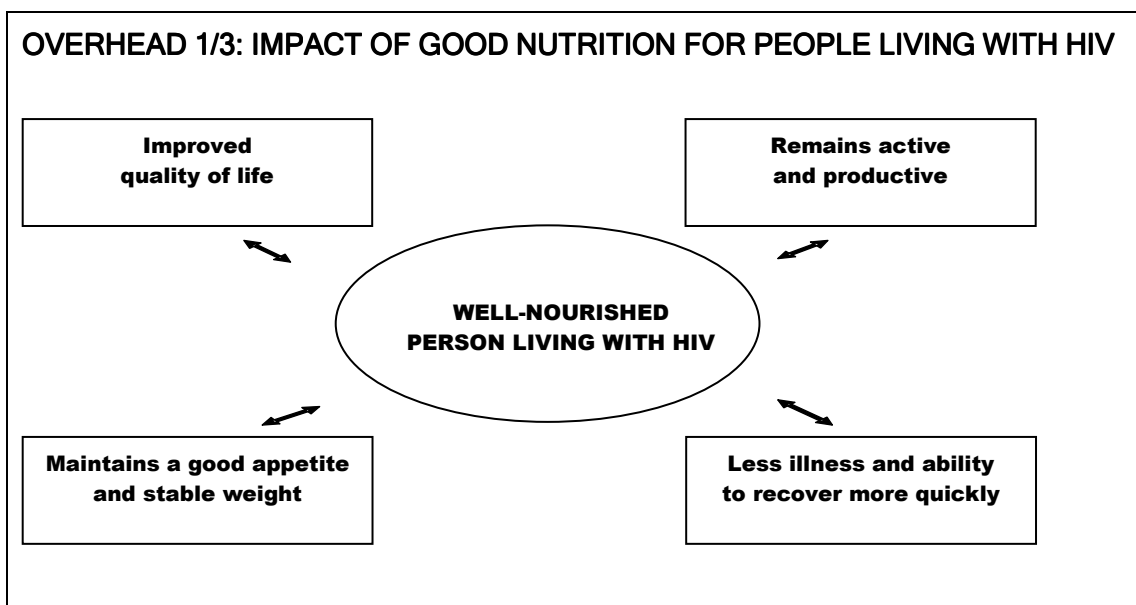
- ☆ For those who are losing weight, add extra quantities of fats and oils such as, butter, margarine and cooking oil to increase energy intake. If diarrhoea, vomiting or discomfort arises due to these increased intakes, then reduce intake to a level the body is able to tolerate.

- Weight loss and healthy eating guidelines will be discussed in later sessions.

- ☆ Since the effects of HIV starts even in the early stages of HIV infection, nutrition becomes an important aspect of care for people living with HIV at all times. It is thus important to find appropriate ways of encouraging healthy eating as soon as possible so that the person stays healthy.

4. The benefits of nutrition care and support for PLHIV and their families

- Good nutrition is particularly important at the initial stages of HIV infection. Nutrition counselling and education at this early stage gives the person a chance to build up healthy eating habits and to take action to improve access to food and adopt other healthy practices.



- People living with HIV who are well-nourished are likely to:
 - ☆ Have improved quality of life, being able to work and contribute to the family's income;
 - ☆ Have prolonged good health, remaining active and able to care for themselves and help with the care of children and other dependants;
 - ☆ Have reduced illnesses and recover more quickly from infections, thereby reducing costs for health care.
 - ☆ Maintain a good appetite and stable weight.
- Children with HIV who are well-nourished can:
 - ☆ Go to school regularly, resulting in better education and development;
 - ☆ Have more energy to play and have fun.
- The provision of nutrition care and support to people living with HIV and their families promotes well-being, self-esteem and a positive attitude towards life.
 - ☆ Good nutrition should be one of the goals of counselling and care for PLHIV.
 - ☆ Effective nutrition counselling, care and support will improve the quality of life of people living with HIV.
 - ☆ As health workers and caregivers we need to have knowledge and skills that can help improve the nutrition for people living with HIV. For example, counsellors may encourage wise eating even on a brief visit.

5. Summary of the session

☆ KEY POINT ☆

A well-nourished person has a stronger body to fight infection and cope with HIV.

- Food is vital to keep our body working. A well-nourished person has a stronger body for coping with HIV and fighting additional infections.
- Malnutrition in people living with HIV may result in weight loss, due to ‘muscle wasting’ and loss of body fat. It also increases the risk of infections, resulting in, e.g. mouth sores and diarrhoea, which in turn further limit food intake and absorption.
- Good nutrition is very important from the time a person is infected with HIV. Nutritional care and support can improve the quality of life of a person living with HIV.

Session 2: Introduction to communication skills

Learning objectives

By the end of this session, participants will be able to:

- Explain the importance of using a counselling approach with clients;
- Demonstrate the appropriate use of the six listening and learning communication skills; and
- Demonstrate the appropriate use of the six skills for building confidence and giving support.

1. Introduction to communication skills

- Communication skills are only introduced at a basic level in this course. These skills improve with practice.
- Communication skills can be practiced/used at home with your family, as well as in work settings.
- The communication skills that we will review can also be called 'counselling skills' or using 'a counselling approach'. This approach aims to increase the person's confidence so that he/she can decide to adopt and carry out certain new practices.
- Good communication is not just telling or advising a person what they should do. It is a way of working with people to help them decide for themselves what they think is best to do in their situation.
- Good communication skills can be used in many situations when you are talking to a client. In nutrition we could use good communication skills to:
 - Gather information on nutrition practices and challenges the client faces.
 - Praise good practices.
 - Give information on eating wisely or infant and young child feeding practices and suggest changes, if needed.
- A discussion may include other family members. However, it is the decision of the persons themselves as to whom to include in the discussion.

OVERHEAD 2/1: 'WHAT GOOD COMMUNICATION MEANS'

- Listening to and understanding what the client is saying about his/her problem;
- Exploring with the client all the possible options available to solve a problem;
- Providing a client with the necessary information to make informed decisions;
- Evaluating with the client the options available to solve a problem;
- Helping the client reach the best decision to solve the problem he/she faces;
- Providing skill-building, coaching or mentoring to ensure the client solves the problem successfully;
- Identifying the help or support needed and determining the next steps;
- Following-up with the client to evaluate how the action plan is proceeding; and
- Helping the client modify or change the action plan if necessary.

- Many people may not do what they want to do or what you may suggest they do. Client's decisions may depend on a number of influences.
 - Other people's beliefs, opinions and needs;
 - Who controls the household money and resources;
 - Local culture, the media and the person's social status;
 - The health status of the person;
 - Whether the person has disclosed his/her HIV status; and/or
 - Whether there are any perceived risks to taking the particular action in question.

2. Environment for communication

THE STORY OF SAM AND SUZI

- Sam and Suzi are a young couple expecting their first baby. They have come to the health centre to talk to the counsellor.
- In order to talk with Sam and Suzi, the counsellor must create a comfortable environment for them -- one that puts them at ease and encourages them to talk openly.

- The counsellor must create a comfortable environment that puts people at ease and encourages them to talk openly. An environment that encourages communication is one that is:
 - physically comfortable;

-
- private;
 - psychologically safe; that is, one in which the client trusts the health worker or caregiver and believes that what is being presented will be considered confidential; and
 - offers sufficient time and attention for full discussion of the issues.
- A client may feel that the presence of someone such as a family member or friend whom they trust and supports him/her, will contribute positively to his/her care and support. It is for the client to decide who attends his/her counselling session.

3. Skills that facilitate the counselling process

- Once the session begins, the counsellor must use good communication skills to build a relationship that will help the counsellor to gather information and help clients build confidence in order to constructively address the issues they face. There are two major categories of communication skills that could be used:
 - Listening and learning skills; and
 - Skills that help build confidence and give support.

3.1 Listening and learning skills

- The counsellor needs to listen carefully to what the client is saying in order to gather as much information as possible about the client's problem.
- The counsellor needs to do less talking than the client because the necessary information is coming from the client. The counsellor can also learn a lot about the client's nutritional status by just observing, before asking any questions.
- Sometimes this approach is referred to as "The Triple L" (*'Listen, Look and Learn'*) approach.
- There are **six** listening and learning skills that help the counsellor communicate better and facilitate the communication process.

OVERHEAD 2/2: SIX LISTENING AND LEARNING SKILLS

1. Using helpful non-verbal communication;
2. Using responses/gestures which show interest;
3. Empathising;
4. Asking open-ended questions;
5. Reflecting back what the client says; and
6. Avoiding words which sound judgemental.

Skill 1: Use helpful non-verbal communication

- Non-verbal communication means showing your attitude through your posture, your expressions and gestures without speaking. Good non-verbal communication skills will encourage the client to talk more, focus his/her responses and establish a positive environment.
- Following are five non-verbal means of communication, various forms of which can either help or hinder communication:

		Helps	Hinders
1.	Posture	Sit so that your head is level with the other person's.	Stand with your head higher than the other person's.
2.	Eye contact	Look at the client and pay attention as he/she speaks.	Look away at something else or down at your notes.
3.	Barriers	Remove the table or the notes.	Sit behind a table, or write notes while you talk.
4.	Taking time	Make the person feel that you have time. Sit down, greet without hurry, then just remain quiet smiling and waiting for him/her to respond.	Be in a hurry. Greet quickly, show signs of impatience, and look at your watch.
5.	Touch	Touch the client appropriately.	Touch the client inappropriately.

Skill 2: Ask open-ended questions

- To start a discussion with a client, you need to ask some questions. It is important to ask questions in a way which encourages a client to talk and give information. This can save you from asking too many questions and enable you to learn more in the time available.

- Open-ended questions are very helpful. This is because to answer such a question a client must give some information.

Open-ended questions start with “*How? What? When? Where? Why?*”

For example: “How are you eating?”

- Closed questions are less helpful. They communicate that the answer that you expect is either, “Yes” or “No”.

Closed questions start with “*Are you?*” or “*Did he?*” or “*Has he?*” or “*Does she?*”

For example: “Are you eating well?”

Whether the client answers “Yes” or ‘No’, you still will not understand much about his/her eating habits and will not have sufficient information to identify whether there are any problems to be addressed.

- One idea at a time: Asking the client more than one question at the same time allows him/her to choose which question to answer avoiding the other(s).

For example: “When will you tell your parents about your status and how do you think they will react?” The client may avoid such a question that he/she does not want to answer. If the unanswered question is an important one, you must remember to ask it again in a different way.

- ‘No/Why questions’ often sound ‘psychological’ and may make the client feel uneasy or defensive. If a client responds to a question by saying “No”, start the follow-up question with “Tell me/ Explain the reasons...” rather than simply asking “Why?”

Skill 3: Use responses and gestures to show interest

- In order to encourage the client to continue talking, you must show that you are listening and interested in what he/she is saying.
- Key ways to show you are listening include:
 - Gestures: for example, maintaining eye contact, nodding and smiling.
 - Simple expressions of acknowledgement: for example, saying: “Aha”, or “Mmm”.

Skill 4: ‘Reflect back’ what the client says

- It is useful to ‘reflect back’ or repeat what a client says. It shows that you understand, and he/she is more likely to say more about what is important to him/her.
- It is best to repeat what they say in a slightly different way, so that it does not sound as though you are simply copying him/her.

For example:

If a client says: “My mouth gets sore and I cannot eat”.

You could say: “Your mouth gets sore and that makes it difficult for you to eat”.

The client could say: “I feel too weak to fetch vegetables from the garden”.

You could say: “You are too weak and that makes it difficult for you to fetch vegetables from the garden”.

Skill 5: Empathize - show that you understand how the client feels

- When a client says something which shows how he/she feels, it is helpful to respond in a way which shows that you understand his/her feeling from his/her point of view, i.e. to show empathy.
- Note that empathy is significantly different from sympathy. When you sympathize you are sorry for a person, but you look at his/her concerns from *your* own point of view.
- Empathy should not only be about understanding the client’s bad feelings. It is helpful to empathize with a client’s good feelings as well.

Skill 6: Avoid words that sound judgemental

- Words that can be perceived as judgemental include:
 - right
 - wrong
 - good
 - bad
 - well
 - badly
 - enough
 - properly
- *For example:* Avoid questions such as “Does the baby sleep well?” Instead, ask: “How is the baby sleeping?”

☆ KEY POINT ☆

When you ensure physical comfort, listen and talk about food and eating, you show that you care about the person.

3.2. Skills that build confidence and give support

- People with HIV can easily lose their self-confidence. They are thus likely to succumb to pressures from others around them. In some cases, this may lead to unhealthy practices.
- You, therefore, need skills to help them feel confident and good about themselves. By doing so, you can help them resist pressures which may prevent them from successfully adopting healthy practices.
- The following six skills can help build confidence and give support to clients.

OVERHEAD 2/3: SIX SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT

1. Accepting what a client thinks and feels;
2. Recognising and praising what a client is doing right;
3. Giving practical help;
4. Giving a little, relevant information which can be of immediate use to the client;
5. Using simple language; and
6. Making a few suggestions, rather than giving commands.

Skill 1: Accept what a client thinks and feels

- Accepting means responding in a neutral way, without agreeing or disagreeing.

For example: The client may say: I do not eat fish; it is bad for someone with HIV infection.

You could respond in a neutral way by saying: "I see".

Skill 2: Recognize and praise what a client is doing right

- The idea is not just to look for what a client is doing wrong, and try to correct him/her. We must first **recognize** what he/she is doing **right** and praise him/her or show approval of the good practices. Praising good practices will help:
 - Build a client's confidence;
 - Encourage him/her to continue those good practices; and
 - Make it easier for him/her to accept suggestions later on.

Skill 3: Give practical help

- Practical help is the most supportive intervention.
- When clients have a problem that they need to solve, the counsellor should help them walk through the steps that will give them the confidence to solve the problem in a constructive way.

For example:

- When a client says: "I no longer feel comfortable to continue with exclusive breastfeeding because I do not know if I am producing enough breast milk".
- You could ask: "Why do you think that you do not have enough breast milk?" or "Does the baby continue crying after feeding?, and
- You could suggest that the mother try breastfeeding the baby more frequently, in order to have more milk for the baby.

Skill 4: Give a little relevant information which can be of immediate use to the client

- It is important to give information which is relevant to the client's situation now. Practical measures that he/she can take today, rather than in a few weeks time.
- Try to give only one or two pieces of such information at a time.
- Give information in a positive way, so that it does not sound critical, or make the client think that he/she has been doing something wrong. This is especially important if you want to correct a mistaken idea.
- You do not need to give new information or correct a mistaken idea immediately. Wait until you have built the client's confidence, by accepting what he/she says, and praising what he/she does well.

Skill 5: Use simple language

- It is important to use simple language and familiar terms to explain things to the clients.
- Avoid using medical terms or technical jargon.

For example: A client may not necessarily understand the term "exclusive breastfeeding". Thus, when informing her about this practice, you could talk about "giving a baby breast milk only and not any other milk or food, not even water".

Skill 6: Make a few suggestions rather than commands

- Care must be taken not to tell or command clients to do something. This does not help him/her to feel confident.
- Instead you should suggest what he/she could do. Then he/she can decide to do it or not. This leaves him/her feeling in control and confident.
- Examples of command words: always; never; must; should.
- Examples of phrases for making suggestions:
 - Have you considered....?
 - Would it be possible....?
 - What about trying...to see if it works for you?
 - Would you be able to?
 - Have you thought about....? Instead of....?
 - You could choose between....and....and....
 - It may not suit you, but some mothers..... a few women....
 - Perhaps....might work...
 - Usually....Sometimes....Often....
- For example, instead of saying: "You should eat more fruits and vegetables"; you could say:

“ _____ ”

(Change this command into suggestion using one of the phrases listed above).

-
- It is also important to check that the person understands the information and if she/he can, and is willing to apply the suggestions you are making. Also necessary is some follow-up action to evaluate how well the client implements the decision(s) he/she made.
 - *Show the second key point displayed, and ask a participant to read it out loud.*

☆ KEY POINT ☆

When you assure confidentiality and give clients support by praising their positive practices related to food and eating, you help build their self-confidence.

5. Role-plays

- Refer to Handout 2/1: Role-play 2 A: 'The effects of counselling styles on the patterns of interaction between client and counsellor'.
- Refer to Handout 2/2: Role-play 2B: 'Demonstration of how to use counselling skills to gather information'

6. Summary of the session

☆ KEY POINTS ☆

When you ensure physical comfort, listen and talk about food and eating, you show that you care about the person.

When you assure confidentiality and give clients support by praising their positive practices related to food and eating, you help build their self-confidence.

- Good communication is not simply telling or advising a person what they should do. It is a way of working with people to help them decide for themselves what they think is best to do in their situation.
- **"Listen, Look and Learn"**: Do less talking than the client because the necessary information is coming from the client.

□ *Review the various types of communication skills covered in the session, as summarized below:*

Listening and learning	Use helpful non-verbal communication
	Ask open questions
	Use responses and gestures which show interest
	Reflect back what the client says
	Empathize: show that you understand how the client feels
	Avoid words which sound judgemental
Building confidence and giving support	Accept what a client thinks and feels
	Recognize and praise what a client is doing right
	Give practical help
	Give a little relevant information which can be of immediate use to the client
	Use simple language
	Make a few suggestions rather than commands

HANDOUT 2/1

ROLE-PLAY 2A: The effects of counselling styles on patterns of interaction between client and counsellor

- The clients are Sam and Suzi who are HIV positive. They will be talking to three different counsellors who have three different styles of interacting in order to illustrate the effect of counselling styles on the patterns of interaction between client and the counsellor. Listen to determine whether the counsellor is agreeing, disagreeing or accepting what Sam or Suzi is saying.

1.		
COUNSELLOR 1:	Foods from animals can help you to stay healthy. Could you eat some of these foods?	
SAM/SUZI:	I do not have the money to buy animal foods. I buy the special tablets in the market to keep me healthy and they are very expensive.	
COUNSELLOR 1:	Oh no, those tablets are a waste of your money. You should not buy them.	

2.		
COUNSELLOR 2:	Foods from animals can help you to stay healthy. Could you eat some of these foods?	
SAM/SUZI:	I do not have the money to buy animal foods. I buy the special tablets in the market to keep me healthy and they are very expensive.	
COUNSELLOR 2:	Yes, many people buy those tablets to keep them healthy. I am sure they will help you.	

3.		
COUNSELLOR 3:	Foods from animals can help you to stay healthy. Could you eat some of these foods?	
SAM/SUZI:	I do not have the money to buy animal foods. I buy the special tablets in the market to keep me healthy and they are very expensive.	
COUNSELLOR 3:	You find buying the tablets very expensive and this leaves you with less money for food.	

HANDOUT 2/2

ROLE-PLAY 2B: Demonstration of how to use counselling skills to gather information

- A client and a health worker are talking. Observe and note the communication skills the health worker uses.

		COMMUNICATION SKILL USED
HEALTH WORKER	Please sit down (<i>name</i>). Welcome. How are you today?	
CLIENT	Well, I am OK.	
HEALTH WORKER	Describe how you feel?	
CLIENT	I have more energy to do my work	
HEALTH WORKER	Anything else?	
CLIENT	I seem to have more <i>colour</i> in my face.	
HEALTH WORKER	I see you were weighed earlier by the doctor and your weight has stayed steady since I last saw you. That's very good. Describe what you have been eating?	
CLIENT	I did some of the things you suggested the last time.	
HEALTH WORKER	Specifically tell me which suggestions you followed.	
<i>PAUSE</i>		

HEALTH WORKER	I am glad some of the suggestions were useful to you. Are you having any problems eating?	
CLIENT	Yes, sometimes.	
<i>IDENTIFYING THE PROBLEM</i>		
HEALTH WORKER	Describe the problems that you are having?	
CLIENT	Well, my mouth gets sore.	
HEALTH WORKER	Your mouth gets sore. Does it get sore when you eat certain foods or does it just become sore?	
<i>PAUSE</i>		
CLIENT	Just sometimes, it is sore and hard to eat.	
HEALTH WORKER	You find that is hard to eat because your mouth gets sore. Let me tell you about some things that might help you to eat more comfortably?	

Session 3: Eating wisely

Learning objectives

By the end of this session, participants will be able to:

- Describe the role of food in our body, for growth, repair, energy and protection;
- Outline the principles of healthy eating or eating wisely; and
- Discuss how food choices are made.

1. Introduction

- Sam and Suzi thought about what the HIV counsellor had said to them about how eating wisely helps people to stay healthy longer. They decided they would go to the talk at the health centre.
- In this session, we will hear a talk as if it were being given to a group in a health centre. This talk will describe the role of food in growth, repair, energy and protection and outline the principles of eating wisely. We will discuss how similar information could be used with an individual and how people make choices about what food they eat.

2. Nutrients and their role in the body

OVERHEAD 3/1: NUTRIENTS

- **Macro-nutrients:** carbohydrates, protein and fat
- **Micro-nutrients:** vitamins and minerals

- Food is made up of nutrients needed by the body. These nutrients are divided into *macro-nutrients* such as, carbohydrates, protein and fat, which are needed in large amounts; and *micro-nutrients* such as, vitamins and minerals, which are needed only in small amounts.
- Nutrients work as a team and need each other. The body cannot function properly if even one of nutrients is missing.

- A healthy diet provides foods in the right amounts and combinations that are safe and free from disease and harmful substances.
- ☆ People think of *eating food* rather than *eating nutrients*. In this session, we will often talk about food and not nutrients. The session looks specifically at the nutritional needs of PLHIV and how, by eating wisely, one can ensure that food of adequate quantity and quality is eaten to meet these needs.

3. An 'eating wisely' demonstration talk

- Some of you may need to talk to a group about healthy eating. The information in this section is presented in a way that you might introduce this subject to a group.
- During this demonstration talk, you will pretend to be the group of people attending the talk given by a health worker at a health centre.

As part of the demonstration talk, there will be some questions where you still pretend you are the people in that health centre group.

3.1. 'Eating wisely': introduction

OVERHEAD 3/2: THE ROLE OF FOOD IN THE BODY

Food helps us to:

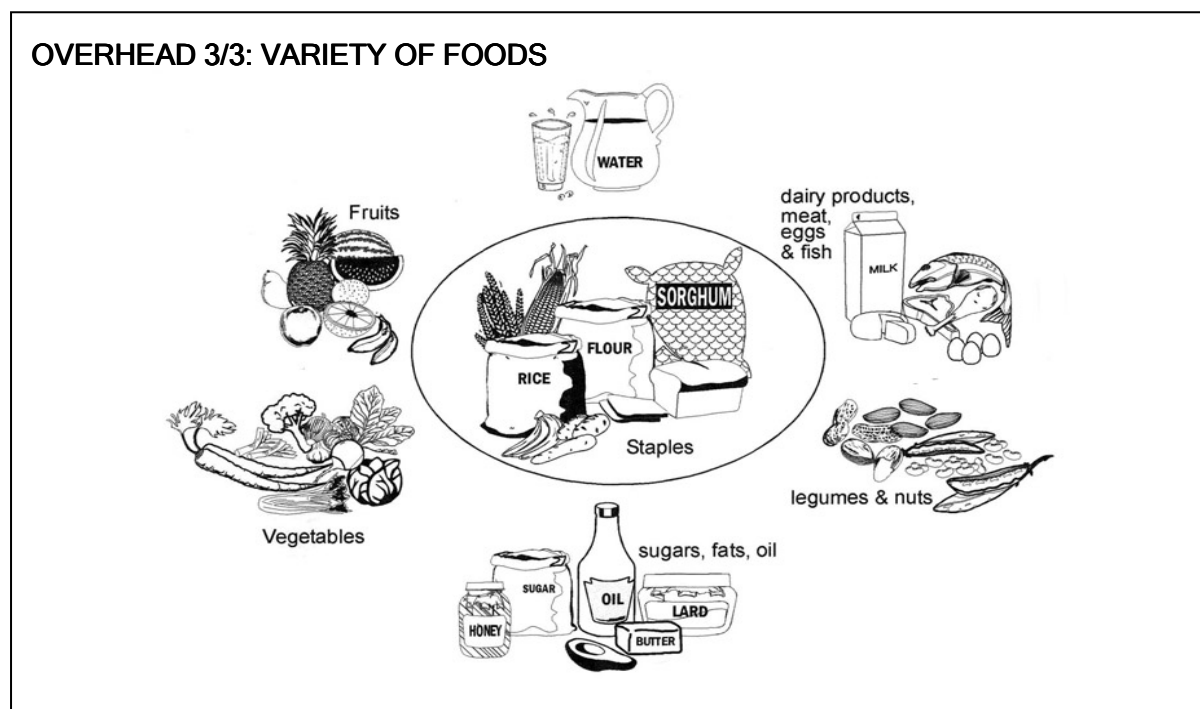
GROW GO GLOW

- Food is used by the body to:
- **Grow:** Food is essential for our bodies to develop, replace and repair cells and tissues.
Children need food to grow. For adults, food serves to repair cells and tissues. To illustrate this process it is useful to think of the body as a wall made of many bricks. If a brick is damaged, it is taken out and replaced by a new one. The wall may stay in the same shape but it is repaired or renewed in parts. Food is essential for this continual repair process to take place in the human body.
- **Go:** Food is essential for our bodies to produce energy, to keep warm, to move and work.
Food provides us with energy or fuel to move about and be active; to keep the body working, the heart to pump blood, the lungs to breathe, and to produce body fluids such as blood, breast milk, saliva and

digestive fluids. The body also needs food to carry out the process of food digestion. In the same way that a car cannot go without fuel, the body becomes weak without food and cannot function.

- **Glow:** Food is essential to protect our bodies from disease, to fight infection and to recover from illness. Food thus, enables our bodies to 'glow' or 'shine with health'.
- 'Eating wisely' means eating a variety of foods in the right quantity, combination and frequency to provide the body with the required nutrients on a daily basis. This means that to stay healthy, we need to try to eat many different kinds of food at each meal.

It is essential for all people to understand and follow the principles of eating wisely in order to ensure adequate food for meeting their nutritional needs.



3.2 Enjoying a variety of foods

- No single food or group of foods contains all the nutrients that the body needs in the right quantities and combinations, except breast milk for infants up to six months.
- Eating a variety of different foods will provide the nutrients that are essential for our bodies. It is important to include different food and food groups in one's diet as well as to alter methods of preparation.

- By taking care to choose foods that are in season and locally available, eating can be enjoyable, healthy and affordable.
- It might not be possible for all people to enjoy a variety of foods at each meal. However, it is important that, at least, the meals consumed throughout the day are varied.
- An example of a mixed meal of optimal variety is one made up of maize-meal, chicken, pumpkin and spinach.
- This could be exchanged with other foods in other meals and days.
- For example, maize-meal can be eaten with other meats, animal products or legumes, instead of chicken. In addition, try to buy fruits and vegetables that are in season, such as, oranges and traditional green leafy vegetables, to add variety. Fruits and vegetables can also be grown at home.
- In addition, the same food could be cooked differently. For example, instead of always frying food in fat or oil, you could try steaming, baking, and grilling.
- Vegetables need not always to be cooked but can also be used as salad. It is important to clean vegetables thoroughly if they are to be consumed raw.

3.3 Make staples or starchy foods the largest part of your meal

- Staple foods should be eaten with every meal. When planning meals, the staple or starchy food should be the central or main food, and the rest of the meal should be planned around this food.

Table 3/1: Examples of staples or starchy foods

Cereals and Grains	Starchy Roots or Tubers	Starchy Fruits
Maize/Corn Meal	Cassava (Fresh)	Breadfruit
Millet	Cassava Flour	Plantain
Rice	Potato	
Sorghum	Sweet Potato	
Wheat Flour	Yam	

- These foods are relatively cheap and provide mainly energy or fuel to give us **'Go'**, as well as some nutrients to help us **'Grow'** and **'Glow'**.
- However, staples alone are not enough to ensure adequate variety of food and to provide all the nutrients that the body needs. Thus, we need other foods as well.

3.4 Eat pulses and legumes, nuts and oil seeds, if possible everyday.

- These foods are needed to 'Grow' as they help develop and repair of the body and also to build up strong muscles. They also contain some nutrients to help 'Glow'.

Table 3/2: Examples of pulses and legumes, nuts and oilseeds

Pulses and Legumes	Nuts and Oilseeds
Chickpeas	Ground Nuts
Cowpeas	Melon Seeds
Kidney Beans	Peanuts
Lentils	Pumpkin Seed s
Pigeon Peas	Sesames
	Soybeans

- These foods are cheaper sources of protein than animal products such as, beef and chicken, and should be eaten everyday, if possible.
- However, most of them may require thorough cooking to help their digestion.
- Soaking beans and peas in water prior to cooking, and using locally-made, fuel-efficient cookers will reduce the amount of firewood needed to cook them well.

3.5 Eat poultry, meat, fish, eggs, milk and milk products regularly

- These foods are useful for growth and repair, for the formation of blood, to strengthen muscles and the immune system to fight infections.

Table 3/3: Poultry, meat, fish, eggs, milk and milk products

Milk and milk products	Poultry, meat and fish
Cow milk (fresh)	Chicken, turkey, duck, geese, etc.
Goat milk (fresh)	Beef (cow/ bull)
Fermented milk	Goat
Cheese	Lamb (sheep)
Curd	Pork
Yoghurt	Rabbit
	Deer
	Fish

	Insects
	Organ meats/offal, e.g. liver
	Eggs

- Liver and other organ meats or offal are particularly valuable for the formation of blood.
- Fermented milk is beneficial if a person has diarrhoea because it is easily digested, may help in digestion and absorption of other foods and is a good source of energy. Fermented milk may be readily available and does not need to be stored in a refrigerator.
- Breast milk is a good food for infants and young children. It helps them to ‘**Grow**’, ‘**Go**’ and ‘**Glow**’.
- Poultry, meat, fish, eggs, milk and milk products may be relatively expensive but it is important to include even small portions of such foods in the meal as often as possible.

3.6 Eat a wide variety of vegetables and fruits everyday

- Vegetables and fruits are an important part of a healthy diet. They supply foods that keep the body functioning and the immune system strong.
- They are known as ‘protective foods’ because they are important for preventing and fighting infections.
- These foods are especially important for people living with HIV to fight infections. Aim to eat a wide variety, as each one has a different way to help us ‘**Glow**’ with health.

Table 3/4: Vegetables and fruits

Vegetables	Fruits
Carrot	Apricot
Kale	Banana
Okra	Lemon
Pumpkin	Mango
Tomato	Orange
Traditional green leafy vegetables	Passion fruit
Spinach	Pawpaw
Sweet Pepper	Pineapple

- Most vegetables and fruits can be easily grown in home gardens. Those who do not have access to land for a home garden, may consider organizing communal gardens for growing such nutritious fruits and vegetables.

- Eat vegetables and fruits that are dark-green, yellow, orange or red in colour; many of these are rich in vitamin A - a nutrient essential for good vision and growth. Examples include:
 - green leafy vegetables (spinach, pumpkin and cassava leaves); green pepper;
 - apricot, papaya, mango; carrot.
- Eat other vegetables and fruits rich in vitamin C to help fight infections; examples include:
 - cabbage, tomato, baobab fruit, guava, lemon, orange and pineapple.
- Vegetables lose some of their goodness if soaked or boiled for a long time. Cook them for as short a time as possible and reuse the cooking water in soups and other foods.

3.7 Use fats and oils as well as sugar and sugary foods regularly but in moderation

- To improve energy intake, use oils and fats as well as sugar and sugary foods because they are rich in energy. They also add flavour to food, thereby stimulating appetite. During illness, a person with a poor appetite may eat better if small amounts of sugar or fats are added.
- Adding extra quantities of oil/fat and sugar may help one to gain body weight. This is particularly important for those living with HIV and children.
- However, care should be taken in the case of patients diagnosed with Candida (oral thrush) as sugar can make this condition worse. In such cases, patients should avoid eating sweet foods such as sugar, honey, and sweet fruit and drinks.
- In addition, as excess weight gain can lead to health problems such as, heart disease, it is essential to closely monitor one's weight and adjust fat and sugar intake as appropriate.

Table 3/5: Sugars, fats and oils

Sugar and Sugary foods	Fats	Oils
Biscuits	Butter	Coconut oil
Cakes	Fat from meat	Corn oil
Fruit juices	Ghee	Groundnut oil
Honey	Fat from fish	Palm oil
Jam	Margarine	Sunflower oil
Sodas		
Sugar Cane		
Table/Tea Sugar		

-
- Although fats and sugars are good sources of energy, they are not rich in other nutrients. Thus, they should be eaten in addition to other foods and not in place of them. Closely monitoring one's weight will ensure that fats/oils and sugars are consumed in moderation.
 - Because fats/oils, sugar and sugary products enhance the flavour of food and boost one's appetite, people tend to overuse them. It can then become difficult to reduce their intake.
 - People living with HIV who are not experiencing weight loss should be encouraged to regulate their fat/ intake by:
 - choosing more foods with adequate natural fats/oils and need little or no extra oil for cooking, and/or using cooking methods such as, steaming, grilling and boiling as often as possible; and
 - choosing fewer foods that are rich in sugar, such as fizzy drinks, cakes, sweets, chocolate and commercial juices.
 - In case of excess weight gain, sugar and fat intake should be reduced gradually, while closely monitoring one's weight. For example, if one normally takes three teaspoons of sugar, this can be reduced to two and a half and then gradually to two or less, until optimal levels are reached.

3.8 Drink plenty of clean and safe water

- Water is important for life and is necessary everyday. A person needs about two to three litres or eight large cups of fluids each day.
- When it is very hot, while working, sweating or suffering from diarrhoea, vomiting or fever, a person needs to drink even more to replace the water that has been lost. Some medications may not work well if the person is dehydrated. Breastfeeding women also need extra water.
- Children also need adequate water. However, care should be taken to avoid filling a child with watery drinks in place of foods.
- Exclusively breastfed infants (<6 months of age) do not need extra water.
- If drinking water is collected from a protected well or river the water should be boiled for at least 10 minutes and stored in clean container (*see the discussion in **Session 5** on 'Food Safety'*).
- In addition to drinking clean water, fluid can also come from juices, soups, vegetables and fruit as well as meals that have gravy or sauces. Thirst is a good guide; if you are frequently thirsty, you need to increase your fluid intake significantly.
- However, one should not rely on tea, coffee and alcohol drinks as source of water, as they can interfere with absorption of nutrients and may interact poorly with medicine.
- Alcoholic drinks remove water from the body and as such are not a good source of fluid.

3.9 Use foods that are fortified with essential nutrients, if possible

- Fortified foods have added nutrients to improve the nutritional value of readily available foods.
- Examples of fortified foods include: salt with iodine, maize meal with vitamins, and oil with vitamin A.

-
- Where available and affordable, such fortified foods can be used to improve one's nutritional intake.
 - It is important to read labels and/or ask for advice regarding the nutrients contained in fortified foods. Attention should also be paid to their expiry dates.
 - Like fruits and vegetables, fortified foods should not be over-cooked as this may result in the loss of nutrients.

3.10 Optimal quantity and frequency of meals

- People have different needs and so eat different amounts of foods depending on their age, gender, level of activity.
- Pregnant and breastfeeding women and people who are ill also have special nutritional needs.
- In particular, because people living with HIV have increased energy needs, they should be encouraged to:
 - Increase the frequency of their meals and snacks:
 - It is easier to eat wisely if you eat three or more times daily, rather than having large meals once or twice in the day. Having small, frequent meals about three to four hours apart everyday helps to increase energy intake.
 - Increase the amount and variety of food consumed during each meal.
 - There is often uncertainty regarding the appropriate amount of food to be eaten. People often ask "How do I know when I am eating enough?" The simplest way of knowing that the appropriate amount of food is being consumed is by regularly monitoring one's weight and ensuring that it is within the 'normal range' for one's age group and height.
 - Measuring portions of food using common utensils such as, cups and spoons can help ensure that appropriate quantities of different food types are included in each meal. Examples of portion sizes of a healthy meal are provided in **Handout 3/1** available at the end of this section.
 - Increasing nutritional intake may mean consuming additional portions of food such as, one to two extra portions (about one or two fists full) of mealy meal or one to two cups of porridge during the day. It can also mean an additional meal during the day.
 - Make every portion count by choosing a variety of foods that are rich in nutrients.
- One's diet can also be enhanced by adding nutrient-rich foods, including foods fortified with essential nutrients in each meal. In families with one or more members living with HIV, it is especially important for the entire family to eat wisely.
- HIV-positive people need to pay attention to their diet even before they have any symptoms. 'Eating wisely' can help them to stay healthy longer.

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- It is essential that people living with HIV understand and follow the ‘eating wisely’ guidelines to ensure that their food intake is adequate for meeting their nutritional needs.

‘Eating wisely’ guidelines

1. Enjoy a variety of foods.
2. Make staples or starchy foods the largest part of your meal.
3. Eat peas, beans, lentils, nuts and seeds, if possible everyday.
4. Eat animal and milk products regularly.
5. Eat a wide variety of vegetables and fruits everyday.
6. Use fats and oils as well as sugar and sugary foods regularly but in moderation.
7. Use foods that are fortified with essential nutrients, if possible.
8. Drink plenty of safe water.

☆ KEY POINT ☆

Aim to eat a wide variety of foods, at each meal, everyday.

3.11 More information on ‘eating wisely’

- The information presented in this demonstration talk was basic. You may be asked about other areas not included in the talk, e.g. what to do in cases where animal foods are not eaten. The following points can be used to explain the appropriate measures to be taken in such cases.
 - Animal foods such as, meat, poultry, fish and insects are valuable foods for people living with HIV. Many animal foods are a good source of iron. If animal foods are not eaten, foods enriched with iron, such as fortified cereals, can help meet these needs. A supplement with iron and zinc may also be needed if animal foods are not eaten. However, as iron supplements may cause digestive problems for some people, their use needs to be discussed on an individual basis.
 - Animal products such as, eggs and milk products are good sources of many other nutrients as well. Egg yolk and milk fat are rich sources of vitamin A.
 - As an alternative, dried milk powder can be added to soups to give more food value. However, coffee creamers and whiteners do not add food value.

4. Food choices

- We make choices about the food we will eat or give to children or others we care for based on:
 - What foods are available/affordable;
 - Time, energy and equipment;
 - Knowledge, culture, habit, family preferences and beliefs about food; as well as
 - Hunger or appetite.
- Knowledge about what foods to eat is not enough. The food a person eats is affected by his/her access to foods as well as customs and beliefs. Check that any suggestions you give are acceptable and can be carried out.
- When suggesting food to a person, consider their preferences, culture, habits and beliefs. Foods may be chosen or avoided because of religious beliefs, family tradition, local customs or personal preference.

ROLE-PLAY 3A: Discussing ‘eating wisely’ with the caregiver of a young child

		COMMUNICATION SKILLS USED
HEALTH WORKER	Good morning, (<i>Name</i>). Please sit down. How are you today? How can I help you?	
CAREGIVER	Good morning. We are well. I wanted to talk some more because (<i>Child's name</i>)’s weight is still low.	
HEALTH WORKER	Yes, thank you for coming today. The last time we spoke, you were going to try to give (<i>Child's name</i>) a full bowl of food three times in the day, plus something small between the meals. How did that work?	
CAREGIVER	Well, it seems a lot of food to give a young child. Does (<i>he/she</i>) really need that much food?	
HEALTH WORKER	It seems to you like a lot of food for a young child. (<i>Child name</i>) is growing very fast at this age. To grow well, children need plenty of food.	
CAREGIVER	But what if (<i>he/she</i>) didn’t eat it all? I don’t have extra food to waste.	
HEALTH WORKER	You are worried about wasting the food if it is not eaten. What about increasing the amount slowly - adding one or two extra spoonfuls each day until it is a full bowl?	
CAREGIVER	I could try that. Then I would see if (<i>he/she</i>) eats it without wasting it.	
HEALTH WORKER	That’s a good idea. So what would you put in the bowl each time?	
CAREGIVER	I’ll put a bit more food in each day until (<i>he/she</i>) is eating a full bowl three times a day.	

HEALTH WORKER	Exactly. And you already give a variety of foods including some animal food whenever you can, so keep doing this. Can you try it for two weeks and then come back and tell me how it went?	
CAREGIVER	OK, I'll do that. Thank you. Good-bye.	
HEALTH WORKER	Good-bye.	

5. Summary of the session

☆ KEY POINT ☆

Aim to eat a wide variety of foods, at each meal, everyday.

- Food is needed for energy, to build and repair, to protect and to keep the body functioning. We need a variety of foods. The amount to eat and how often to eat depends on individual needs.
- When suggesting food to a person, consider their preferences, culture, habits and beliefs. Foods may be chosen or avoided because of religious beliefs, family tradition, local customs or personal preference.

HANDOUT 3/1: Food portions: sizes of a healthy meal

FOOD GROUP	EXAMPLES	1 PORTION	PORTIONS FOR DAILY MEALS
STAPLES & STARCHY FOODS	Bread	1 slice	6 PORTIONS - Example: <u>Breakfast:</u> 1 cup of porridge <u>Snack:</u> 1 slice of bread <u>Lunch:</u> 1 cup of rice during lunch <u>Snack:</u> 1 slice of bread <u>Supper:</u> 1 cup of maize meal
	Rice/ Pasta	½ cup (measured after cooked)	
	Maize-meal	1 cup (or about 1 fistful)	
	Potatoes	1 medium size potato	
MEAT, FISH, POULTRY & MILK	Chicken, beef, lamb, fish	Equivalent size to one chicken thigh	3 PORTIONS + 1 PORTION OF MILK <i>Example:</i> <u>Lunch:</u> 1 thigh of chicken <u>Snack:</u> 2 tablespoons of peanut butter <u>Supper:</u> 1 cup of cooked beans <u>Snack:</u> 1 glass of milk for snacks
	Eggs	1 egg	
	Milk (fresh/fermented)	1 cup	
PULSES & LEGUMES/NUTS & OIL SEEDS	Cooked beans	1 cup	
	Nuts	1 cup	
	Peanut butter	2 tablespoons	
FRUITS	Fruits	1 medium size piece of fruit	3 PORTIONS - Example: <u>Breakfast:</u> 1 glass of orange juice <u>Lunch:</u> 1 piece of fruit <u>Snack:</u> 1 piece of fruit
	Fruit juices	1 glass	
VEGETABLES	Raw chopped vegetables	1 cup	5 PORTIONS - Example: <u>Breakfast:</u> ½ cup of green beans <u>Lunch:</u> 1 cup of mixed vegetables <u>Snack:</u> 1 cup vegetable salad <u>Supper:</u> 1 cup of green leafy vegetables
	Cooked vegetables	½ cup	
FATS & OILS		1 teaspoon	5 PORTIONS (INCLUDING NATURAL FATS FOUND IN MEAT) <i>Example:</i> 1 teaspoon of oil for every meal
WATER		1 glass	8 PORTIONS: 8 glasses of safe water and fluids spread out throughout the day.

EXERCISE 3/1: Food choices worksheet**1. Food availability**

- What affects the availability of foods?
- What foods are grown or produced in the area?
- Are there foods that are commonly available at only certain times of the year?
- How far do the people you work with need to go to get their food?
- Does the distance differ depending on what the food is? For example, can rice be obtained nearby but vegetables or animal foods are further away?
- Cost is a major factor in availability. Which foods are seen as affordable for many people?
- Which foods mentioned in the 'Eating wisely' talk are considered 'too expensive' for regular use? (*We will discuss food subsidies, grants and food aid later in the course.*)

2. Time, energy and equipment

- How much time is needed everyday to prepare food in order to 'eat wisely'? How does this affect food choices?
- Energy can be of two kinds. The energy or fuel to cook the food and the human energy required to prepare it. How can each kind affect food choices?
- Can you think of any equipment that might not be available to some of the families you care for that would affect their food choices?

3. Culture, habit, family preferences and beliefs about food

- Are there foods that might be avoided by people living with HIV because of certain beliefs or customs?
- Are there foods that are considered beneficial for people who are ill, especially for HIV?
- Are some foods avoided because they are associated with poverty? Are there any foods that may be chosen in place of others because they are thought to be of 'higher status'?
- How do local people commonly learn about what foods to use and how to prepare them?

Session 4: Food safety for people with HIV

Learning objectives

By the end of this session, participants will be able to:

- Explain the importance of food safety, especially for people with HIV;
- Describe how food and water can become sources of infection;
- Discuss the five keys to safer foods; and
- Develop and use an observation guide to help identify common food safety problems and their appropriate solutions.

1. Introduction

- As a part of good nutrition, it is important that the food we eat and the water we drink is safe.
- Food can easily be contaminated by harmful germs or poison at anytime before eating, if it is not handled, prepared and stored in a safe way. A person eating these contaminated foods may become ill and experience symptoms such as stomach pains, nausea, vomiting and diarrhoea. This illness is called food-borne illness.
- The consequences of food-borne illness are more severe for people with low immunity such as people living with HIV.
- In this session, we will discuss the importance of food safety, especially for PLHIV and some key guidelines for ensuring food safety. It is important that all people follow these food safety guidelines, whether they have HIV or not.

2. Causes of food-borne illness: germs

2.1. Food can be easily contaminated by germs or poison

- Germs are very small living things -- so small that they cannot be seen with the naked eye. It takes one million germs to cover the head of a pin. Bacteria, viruses, yeasts, moulds and parasites are all germs. Germs can be:
 - **'Good germs'**, useful for making food and drinks like cheese, yoghurt, beer and wine, as well as medicines such as penicillin. They also help digest the food in the gut.
 - **'Bad germs'**, which cause food to spoil, smell bad, taste horrible and look disgusting.
 - **'Dangerous germs'**, which make people sick and can even kill them. Most of these germs do not change the appearance of the food. It is therefore, difficult to tell if food is spoiled simply

by its appearance, taste and smell. Some bad germs do spoil and change the appearance of food and are also dangerous. For example, green mould on bread can produce harmful toxins

2.2. Where do germs live?

- Germs are everywhere, but are mostly found in:
 - Faeces: human and animal faeces contain disease-causing germs
 - Soil and water: a teaspoon of soil contains more than 1 billion germs.
 - Rats, mice, insects and pests: all living things have germs associated with them
 - Domestic, marine and farm animals: e.g. dogs, fish, cows, chickens and pigs; animals carry germs on their feet, their mouths and on their skin.
 - People: mouth, nose, bowels, hands, fingernails and skin.
- In order to move around, germs rely on someone or something. Hands are one of the most common means of moving germs from one place to another. For example, if you touch your face with your hands and then touch some food with the same hand, the food can become contaminated.
- Germs can also be spread through contaminated food and water. Pets and domestic animals can also be a source of contamination.

2.3. How do germs grow?

- Most germs “grow” by multiplication. To multiply, germs need food, water, warmth and time.
- Meat, seafood, cooked rice and pasta, milk, cheese and eggs provide ideal conditions for germs to grow.
- Raw and under-cooked chicken, meat, fish and eggs, raw milk, contaminated, raw vegetables, raw/ smoked fish and unsafe water could contain dangerous germs.
- Feeding children with infant formula and other foods prepared with unsafe water may cause dangerous illness and even death.¹

3. Other causes of food-borne illness: poisons

- Germs are not the only cause of food-borne illness. People can also get sick from being ‘poisoned’. The sickness can result from chemical contamination, from exposure to the chemicals on an ongoing basis, for an extended period of time.

¹ ‘Safe’ means that water and food are free from dangerous germs and toxic chemicals at levels that could cause illness and/or disease.

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- These toxins and chemicals include: natural toxins, metals and environmental pollutants, chemicals used for treating animals, improperly used pesticides and food additives, as well as various chemicals used for cleaning.
 - Some 'natural' toxins, such as **aflatoxin**, may be caused by moulds growing on food stored in damp places. Maize and peanuts are some of the foods that can have aflatoxin if they are not stored properly. Ingesting aflatoxins may have harmful effects on the liver that can lead to cancer.
 - Some types of cassavas may cause cyanide poisoning when they are not processed well. In severe cases, this may lead to kidney failure and death.
 - Foods grown near highways or roads in areas where most vehicles use leaded fuel may be a cause of lead toxicity.
 - Simple measures, such as, washing and peeling may reduce risk from chemicals found on the surface of foods.
 - Appropriate storage can help avoid or reduce the formation of some natural toxins.
 - Using cookware and utensils glazed with materials containing heavy metals (e.g. lead, cadmium) can also result in chemical poisoning.
 - In addition, it is important to read and understand instructions on the labels of chemicals used for cleaning.

4. Importance of food safety for people with HIV

- Every person is at risk of food-borne illness. Even healthy people sometimes experience stomach pains, diarrhoea, nausea and vomiting, without knowing what caused it. This is often the result of eating contaminated or spoiled food.
- The immune system of a healthy body is well-equipped to fight harmful germs but when the immune system is weakened the body becomes less able to fight such germs.
- Food safety is very important for people living with HIV because of two main reasons: (a) because of their low immunity; and (b) consequences and symptoms of food-borne illness.

Low immunity:

- The immune system of a healthy body is well-equipped to fight harmful germs. However, HIV weakens the immune system making the body of people living with HIV less able to fight harmful germs. This exposes people living with HIV to a higher risk of infections, including food-borne illnesses.

Consequences and symptoms of food-borne illness:

- The symptoms of food-borne illness such as stomach pains, nausea, vomiting and diarrhoea are more severe in PLHIV and are more likely to cause serious conditions such as meningitis.
 - These symptoms may also affect food intake, absorption of nutrients and increase the need for extra nutrients to fight infection.
 - Food-borne illnesses are also difficult to treat and can often persist or recur. PLHIV may also have a harder time recovering from the illnesses.
 - Food-borne illness may cause weight loss, thus further lowering the body's resistance to other infections.
- It is therefore, important that **extra care** is taken to ensure food safety for PLHIV.

5. Keeping food safe

- No food is 100 per cent safe at all times. But the risks of illness can be reduce by following five simple rules about food safety that can help prevent most food-borne illnesses.

OVERHEAD 4/1: Five keys to safer foods

- Keep yourself, your surroundings and cooking utensils clean
- Keep raw and cooked foods separate
- Cook food thoroughly
- Keep food at safe temperatures
- Use safe water and raw materials/ingredients

5.1 Keep clean

- Dangerous germs are easily carried on hands; wiping cloths and utensils, especially cutting-boards, and the slightest contact can transfer them to food and cause food borne illness.
- Always wash hands with safe water and soap: advise people and families to always wash their hands with safe water and soap (or ashes), dry hands by shaking and rubbing them together or using a clean cloth that is kept only for this purpose and to keep finger nails short and clean.
- Advise people and families about hygiene around the home.

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- Just because something looks clean does not mean that it is. It takes over 2.5 billion germs to make 250 ml of water look cloudy, but in some cases it takes only 15-20 dangerous bacteria to cause illness.

5.2 Separate raw and cooked foods to stop germs from spreading

- Raw food, especially meat, poultry, seafood and their juices can contain dangerous germs that may be transferred onto other foods during preparation and storage. This is called '**cross-contamination**'.
- Advise individuals and families to always:
 - Separate raw and cooked food during cooking and preparation, including the animal slaughtering process.
 - Keep raw meat, poultry and seafood separate from other foods.
 - Use separate equipment such as knives and cutting boards for handling raw foods.
 - If possible, use one cutting board for meat, chicken and fish and another for vegetables and bread. Alternatively, clean the board well with soap and hot water after using it for each type of food.
 - Store foods in covered containers to avoid contact between raw and cooked foods.
- '**Cross-contamination**' is a term used to describe the transfer of germs from raw to cooked food.
- Separation must occur not only when cooking, but during all phases of food preparation, including the slaughtering processes.

5.3 Cook food thoroughly in order to kill germs

- Proper cooking can kill almost all dangerous germs. Foods that require special attention include: minced meats, rolled roasts, large joints of meat and whole poultry.
- Advise individuals and families to always:
 - Cook food thoroughly, especially meat, poultry, eggs, fish and seafood.
 - Bring foods like soups and stews to boiling point. For meat and poultry, make sure juices are clear, not pink.
 - Reheat cooked food thoroughly. Bring to boil or heat until too hot to touch. Stir while reheating.
 - It is not safe to eat raw eggs or foods with raw eggs added. Eggs may carry illness-causing bacteria that can survive even in cool temperatures but can easily be killed by heating.

5.4 Keep food at safe temperatures to slow the growth of germs

- Keep hot food hot and cold food cold.
- It is not safe to leave cooked food at room temperature for more than two hours. Germs can grow and multiply very quickly if food is stored at room temperature.
- Advise individuals and families to always:
 - Buy fresh foods, such as meat and fish on the day they will eat them.
 - Prepare food in small amounts to reduce leftovers. Food for infants, children and people with low immunity should be freshly prepared and eaten as soon as possible.
 - Store fresh foods (especially foods from animals), and cooked food in a cool place, or a refrigerator if available.
 - Avoid storing leftovers for more than a few hours (unless refrigerated). Always store them covered and reheat them thoroughly until hot and steaming (bring liquid foods to a rolling boil).
- Food can be cooled quickly by: putting the food onto open trays; slicing large pieces of meat into smaller pieces; placing food in a cool, clean container; or stirring regularly for soups.

5.5 Use safe water/foods to stop germs and chemicals from entering the home

- Raw materials, including water and ice, may be contaminated with dangerous germs and chemicals. Toxic chemicals may be formed in damaged and mouldy foods. Care in selection of raw materials and simple measures such as washing and peeling may reduce these risks.

Safe water

- Advise individuals and families to always:
 - Use safe water such as, treated piped water or water from a safe source such as, a protected well. Untreated water from rivers and canals contain germs which can cause diarrhoea, typhoid or dysentery and are not safe! Water that is not safe should be boiled before drinking or use for food preparation.²
 - Use clean containers to collect and store water with a lid or covered with a clean cloth. Rainwater collected in clean tanks is safe as long as the tank is protected from contamination from birds or other animals. Cool drinks and ice cubes should also be made with water that is safe.

Safe food

- Advise individuals and families to always:
 - Buy fresh foods such as, meat and fish. Look for signs that indicate the poor quality of food.

² Find out about the appropriate method for treating water in your local area or region. One example is the 'bleach method' (see **Handout 4/6**).

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- Foods with any signs of poor quality are likely to have been contaminated.

6. Summary of the session

☆ KEY POINT ☆

Follow the five key steps to safer foods and stopping germs from making you and those around you ill.

- Eating safe foods can help maintain good nutritional status.
- Food-borne illness can be life-threatening for PLHIV due to their lower immunity to fight off infections.
- The five key guidelines to safer food are the **key** to preventing food born illnesses.
 - Keep yourself, your surroundings and cooking utensils clean to stop germs from growing and spreading.
 - Keep raw and cooked foods separate to stop germs from spreading.
 - Cook food thoroughly to kill germs.
 - Keep food at safe temperatures to slow the growth of germs.
 - Use safe water, food and raw materials to stop germs and chemicals from entering the home.

HANDOUT 4/1: Observation guide

- Keep clean (includes hand washing, clean kitchen, dishes, utensils, clean eating places, separation of garbage, and protection from human waste).
- Separate raw and cooked (includes separation of cutting and other utensils).
- Cook thoroughly (includes attention and observation of cooking equipment or materials).
- Keep food at safe temperatures (includes observation of leftovers, food storage).
- Use safe water and raw materials (includes observation of water storage, source of drinking water, water containers, water treatment and handling).

HANDOUT 4/2: Five keys to safer foods

1. Keep clean

- Dangerous germs are easily carried on hands, wiping cloths and utensils, especially cutting-boards, and the slightest contact can transfer them to food and cause food-borne illnesses.
- Always wash hands with safe water and soap.
- Advise individuals and families to always wash their hands with safe water and soap (or ashes):
 - Before and after preparing food and eating;
 - After being in contact with faeces e.g., after going to the toilet, cleaning baby's bottom or cleaning cloths, dirty bed linen or surfaces containing faeces;
 - Before feeding a child or a sick person (make sure they wash their hands too);
 - Dry hands by shaking and rubbing them together or using a clean cloth that is kept only for this purpose;
 - Keep finger nails short and clean.

Maintain hygiene around the home

Advise individuals and families to always:

- Keep kitchen, dishes and utensils clean.
- Wash all work surfaces (table tops, counters, shelves) and dishes with soap and safe water.
- Protect kitchen areas and food from insects, pests and other animals.
- Keep rubbish in covered bin or rubbish pit. Empty and wash the bin or burn rubbish regularly.
- Wash kitchen cloths, sponges and scourers with soap. Sunlight is an effective way to kill germs naturally. Dry cloths in the sun.
- Keep kitchen well ventilated. This help to prevent the growth of moulds and fungus.
- Keep food preparation areas in good condition (repair wall cracks or holes).
- Make composted for the garden with suitable waste food, garden rubbish and animal faeces; composting destroys germs in faeces.

Other ways of keeping clean

Advise individuals and families to always:

- Avoid coughing and sneezing near the food or water.
- Cover any wounds on hands to prevent contamination of food during preparation.
- Use a latrine and keep it away from flies.
- Teach children to use potty, and discard children's faeces in the toilet.
- Clean up faeces from animals.

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- Just because something looks clean does not mean that it is. It takes over 2.5 billion germs to make 250 ml of water look cloudy, but in some cases it takes only 15-20 dangerous bacteria to cause illness.

2. Separate raw and cooked foods to stop germs from spreading

- Raw food, especially meat, poultry, seafood and their juices can contain dangerous germs that may be transferred onto other foods during preparation and storage. This is called “Cross-contamination”.
- Advise people and families to always:
 - Separate raw and cooked food during cooking, preparation including slaughtering processes.
 - Keep raw meat, poultry and seafood separate from other foods.
 - Use separate equipment such as knives and cutting boards for handling raw foods.
 - If possible, use one cutting board for meat, chicken and fish and another for vegetable and bread or clean the board well with soap and hot water after each type of food.
 - Store foods in covered containers to avoid contact between raw and cooked foods.
- Be aware of the following;
 - “Cross-contamination” is a term used to describe the transfer of germs from raw to cooked food.
 - Separation must occur not only when cooking, but during all phases of food preparation including slaughtering processes.

3. Cook thoroughly to kill germs

- Proper cooking can kill almost all dangerous germs. Foods that require special attention include minced meats, rolled roasts, large joints of meat and whole poultry.
- Advise individuals and families to always:
 - Cook food thoroughly, especially meat, poultry, eggs, fish and seafood.
 - Bring foods like soups and stews to boiling point. For meat and poultry, make sure juices are clear, not pink.
 - Reheat cooked food thoroughly. Bring to boil or heat until too hot to touch. Stir while re-heating.
 - It is not safe to eat raw eggs or foods with raw eggs added. Eggs may carry bacteria that cause illness that can survive even in cool temperatures but can easily be killed by heating.

4. Keep food at safe temperatures to slow the growth of germs

- Keep hot food hot and cold food cold.
- It is not safe to leave cooked food at room temperature for more than two hours. Germs can grow and multiply very quickly if food is stored at room temperature.
- Advise individuals and families to always:

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- Buy fresh foods, such as meat and fish on the day they will eat them.
 - Prepare food in small amounts to reduce leftovers. Food for infants, children and people with low immunity should be freshly prepared and eaten as soon as possible.
 - Store fresh foods, (especially foods from animals) and cooked food in a cool place, or a refrigerator if available.
 - Avoid storing leftovers for more than few hours (unless refrigerated). Always store them covered and reheat them thoroughly until hot and steaming (bring liquid food to a rolling boil).
 - Be aware of the following:
 - Food can be cooled quickly by putting the food onto open trays, slicing large pieces of meat into smaller pieces, placing food in a cool, clean container; or stirring regularly for soups.
 - Other food cooling and storage methods applicable in the local area/region; for example: cooling containers of food by dipping them in cold water; digging a hole and burying foods such as potatoes and cassava.

5. Use safe water and foods to stop germs and chemicals from coming into the home

- Raw materials, including water and ice, may be contaminated with dangerous germs and chemicals. Toxic chemicals may be formed in damaged and mouldy foods. Care in selection of raw materials and simple measures such as washing and peeling may reduce risk.

Safe water

- Advise individuals and families to always:
 - Safe water is needed for drinking, to wash fruits and vegetables, to add to food, to make drinks and ice, as well as for cleaning cooking/eating utensils and washing hands.
 - Use safe water such as treated piped water or water from a treated source such as protected well. If the water is not safe, it should be boiled before drinking or being used for food preparation. Untreated water from rivers and canals contain germs which can cause diarrhoea, typhoid or dysentery and are not safe!
 - Use clean containers to collect and store water with a lid or covered with a cloth. Rainwater collected in clean tanks is safe as long as the tank is protected from contamination from birds or other animals. Cool drinks and ice cubes should also be made with water that is safe.
- Boiling, chlorination and filtration are important means to slow growth or kill dangerous germs, but do not remove harmful chemicals.

Safe food

Advise people and families to always:

- Buy fresh foods, such as meat and fish. Look for signs of poor quality of food.

- Foods with any of the poor quality signs are likely to have been contaminated and increase chances of food-borne illness.
- Wash all raw fruits and vegetables thoroughly with safe water before use. If it is not possible to wash them properly, peel them before eating.

Table 4/1: Signs of poor quality of food

FOODS	SIGNS OF POOR QUALITY
Cereals and other dry foods	Contain insects and dirt, look or smell damp or mouldy; bag is broken; legumes are wrinkled; flour is lumpy.
Vegetables and fruits	Wilted, too soft, rotten spots, bruised.
Meat, poultry and fish	Bad smell or colour; fish have dull eyes or loose scales. Uninspected meat, liver and other offal may contain dangerous parasites.
Fresh milk	Smells bad; is, or has been, exposed to dirt and flies.
Canned foods	Can is swollen, rusty or damaged; food has leaked out; food looks or smells or tastes bad. Any of these signs means the food may be very poisonous.
Advise people to check “sell by” (and “use by”) dates on labels and not to buy (or use) foods after this date.	

- Dry cereals and legumes thoroughly and store them in a dry place to avoid moulds from growing. Mouldy cereals and legumes contain “aflatoxin” that can make them seriously ill.
- Food may also be contaminated from the point of production. Involve extension workers for more information on good agricultural practises to ensure production of safer foods.
- People with HIV should avoid tasting any food that might be spoiled. They might have done this in the past and never got ill but remember things are different with HIV.
- Some foods are poor value for money because they contain few nutrients. Examples are sodas (bottled fizzy drink), ice lollies and sweets, which are mainly sugar. These foods should be kept as treats not eaten often.

Other information on food-borne illnesses

- Food-borne illness can also lead to long-term health problems and severe illnesses, including cancer, arthritis and mental disorders especially among children, people who are sick, pregnant women and the elderly.

Advise individuals and families to:

- Seek medical advice immediately when symptoms are severe; for example, when bowel movements are very frequent, very watery or contain blood, or last beyond 3 days.
- Try not to handle or prepare food while ill and 2 days after recovering especially from vomiting and/or diarrhoea.

HANDOUT 4/3: Example of water treatment

The bleach method

- Add 1 teaspoon or one capful if the bottle has a screw cap (5 ml) of bleach to 25 litres of water.
- Mix it well and let it stand for 2 hours (or preferably overnight) before using.
- Store safe water in clean container with a lid or covered with a cloth.

Session 5: Improving food intake

Learning objectives

By the end of this session, participants will be able to:

- Discuss common eating difficulties that may affect the food intake of people living with HIV; and
- Describe strategies and techniques for improving food intake by overcoming loss of appetite, sore mouth and throat, nausea and vomiting, change in taste, diarrhoea and other common difficulties experienced by people living with HIV.

1. Introduction

- People infected with HIV often experience symptoms that lead to the reduction of food intake and are thus, more at risk of malnutrition. Reduced food intake may be for a short time or continue for long time. If food intake is reduced for a long time a person may experience weight loss and then malnutrition.
- In this session, we will discuss more ways of improving food intake when a person with HIV is having difficulty eating. This is done in order to combat malnutrition and weight loss so that the person has a better quality of life.

2. Common eating difficulties that may affect the food intake of PLHIV

Sore mouth/throat	Thrush, herpes, infections and other conditions may cause sore mouth/throat-making it difficult to eat. Patients diagnosed with (Candida) oral thrush should avoid eating sweet foods such as, sugar, honey, sweet fruit and drinks as these can make the condition worse. Mouth hygiene such as rinsing the mouth with clean water before and after meals and cleaning the teeth, is important and can help the person to feel better.
Dry mouth/change in taste	A person may find that they have a taste in their mouth; their mouth may feel dry; or they may be more aware of the texture or feel of food in their mouth. Some medications may make seasonings such as, mint, garlic and ginger taste less pleasant.
Diarrhoea	When a person passes a loose or watery stool three or more times a day, he/she has diarrhoea. There are several causes of diarrhoea including bacterial infections, medication side effects and contamination of food

	resulting from food safety and hygiene problems. Severe diarrhoea may cause dehydration, loss of appetite, poor food digestion and absorption, weight loss and malnutrition resulting in weakness and further illnesses. In young children, diarrhoea can quickly become serious and if untreated can lead to death.
Nausea/vomiting	These symptoms may be caused by infection, stress, certain foods, hunger or lack of water. Unpleasant smells or a side-effect of some medications or treatments. Nausea/vomiting may also reduce the appetite.

- In addition to these four main types of eating difficulties, people living with HIV may experience a general loss of appetite. Loss of appetite may be a sign of other infections such as, tuberculosis. It could also be related with pain in the mouth or gut, or be due to depression, anxiety or tiredness. The feeling of hunger may disappear or the person may feel satisfied and therefore not want to eat. It is recommended that people living with HIV experiencing appetite loss are referred to their doctor/health care provider for determining and treating the cause.
- Suggestions of what to recommend for people when they experience the conditions described above are provided in **Handouts 5/1 to 5/4** available at the end of this section.

THE STORY OF SAM AND SUZI

- Sam was feeling much better for a while. After he talked with the support worker and had treatment for tuberculosis, he was eating well, not losing weight and able to do some work.
- Now, he is not as well as he was before. He has bouts of diarrhoea, a sore mouth and is eating less again. He is looking for suggestions that might help him with these new problems.

3. Eating during recovery

THE STORY OF SAM AND SUZI

- Sam tries some of the suggestions and he is eating better.
- His strength improves and he is able to take regular walks with his family.
- But Sam's weight remains lower now than it was a few months ago.
- Sam talks to the support worker who reminds him that it takes time to regain his lost weight. It can take weeks, not just days. Therefore, Sam needs to pay special attention to what he eats and to continue to eat wisely.

- ☆ When recovering from illness, a person has to make sure to eat extra well, by increasing the quantity and quality of his/her food intake in order to regain weight. The same is recommended for children recovering from illness, who must also be fed more than usual, in order to 'make up for missed meals'.

-
- Safe food practices are important for everyone. Infections from water and food can make a person ill or worsen conditions that may cause reduced food intake. Therefore, prevention of infection from food and water is very important.
 - Discuss, with the people for whom you provide care, ways in which they can keep food safe in their household as discussed in **Session 4**.
 - It is important to encourage people infected with HIV to seek early treatment when:
 - Diarrhoea lasts for more than three days;
 - An infant or young child is not able to drink or breastfeed, is drinking poorly, becomes sicker and weak, has blood in the stool, develops fever; and/or
 - In the case of illnesses such as tuberculosis, fever, oral thrush and depression that may cause loss of appetite.

4. Preparing an oral re-hydration solution to treat dehydration

- Dehydration is caused by excessive loss of water and salts from the body that often occurs due to diarrhoea or vomiting.
- Not all people with diarrhoea need ORS, only those that are dehydrated.
- In young children, diarrhoea can quickly become serious and if untreated can lead to death. It is therefore, important to treat dehydration promptly.
- To treat dehydration the person should receive an oral re-hydration solution (ORS), The ORS can be prepared by using safe water and one of the following:
 - a pre-prepared ORS packet;
 - salt and sugar; or
 - powdered cereal.
- Refer to **Handout 5/5: 'Preparing an oral re-hydration solution (ORS) to treat dehydration'** available at the end of this section.
- In addition to ORS, it is also recommended that the person experiencing dehydration be given foods and fluids which he/she can tolerate.

5. Summary of the session

☆ KEY POINT ☆

Eat well and wisely during illness and when recovering from an illness.

-
- In a person with HIV, reduced food intake may be caused by conditions such as sore mouth and throat, dry mouth/change in taste, nausea and vomiting, diarrhoea and lack of appetite.
 - Reduced food intake for a long time may lead to weight loss and malnutrition.
 - The suggestions given to a person to improve their food intake during these difficulties in eating must be relevant and realistic to the person.
 - Encourage the person to seek treatment early for HIV-related illnesses that may lead to reduced food intake.

HANDOUT 5/1: Suggestions for dealing with a sore mouth/sore throat

- Rinse with slightly salty warm water: use clean boiled water.
- Clean mouth frequently, at least twice a day morning and evening, preferably after every meal.
- Use cinnamon tea as a mouthwash (1/4 teaspoon of cinnamon to one cup of boiling water; cover and allow to cool).
- Take a spoonful of lemon juice mixed with honey to relieve sore throats.
- Add gravy, sauce or custard to meals to make them moist (but not sticky) or dip foods in liquid.
- Eat soft foods such as mashed foods, soups and juices.
- Use a straw to drink liquids to ease swallowing.
- Patients diagnosed with Candida (oral thrush) should avoid eating sweet foods such as sugar, honey, and sweet fruit and drinks.
- Avoid rough foods such as toast or raw vegetables.
- Avoid sticky foods such as peanut butter.
- Avoid very hot or very cold foods.
- Avoid alcohol, in particular spirits.
- Avoid spicy, salty or acidic foods that irritate your mouth.
- Use fermented products such as, yoghurt.
- If solid food is too hard to eat, drink nourishing liquids such as, beef broth, lentil or pea soup and enriched porridge.

HANDOUT 5/2: Suggestions for dealing with dry mouth/change in taste

Dry mouth

- Stimulate saliva production by sucking a hard sweet or chewing gum.
- Serve liquids with meals and sip cold drinks frequently during the day.
- Rinse mouth with clean warm salty water.
- Avoid very hot foods and drinks high in caffeine such as, coffee, strong tea and sodas.

Change in taste

- Clean your mouth frequently by rinsing it with slightly salted warm (safe/boiled) water.
- Use salt, sugar, spices, vinegar, lemon, and other flavours to help change any unpleasant taste in your mouth.
- Eat the foods you do like.
- Try a variety of foods as your taste may come back after a few weeks.
- Very cold foods may taste better.
- Fresh fruits and fruit juice are refreshing and may leave a pleasant taste in your mouth.

HANDOUT 5/3: Suggestions for treating diarrhoea

- Continue to eat and drink which you can tolerate when experiencing diarrhoea.
- Drink lots of fluids: more than 8 cups a day especially clean boiled water, to prevent dehydration. If dehydrated, prepare and take an oral dehydration solution (see **Handout 5/5**).
- Eat small meals, five or more times in the day. Eat slowly and chew well.
- Pay particular attention to food hygiene. Use clean boiled water, keep food and utensils very clean, store food for as short a time as possible in a cold place. If you are reheating food, make sure it is very hot. Keep raw food separate from cooked foods.
- Make rice soup by boiling one cup of rice in 5-6 cups of clean water with a bit of salt for one hour. Eat both the rice and the rice water.
- Eat ripe yellow bananas, cooked apples or mango; avoid unripe fruits.
- Peel and cook vegetables rather than eating them raw.
- Eat refined cereals rather than wholegrain cereals and flour when you have diarrhoea.
- Avoid beans, gas-forming foods, fizzy drinks and highly-spiced foods.
- Eat foods warm, rather than very hot or cold.
- Fat is a good source of energy, so do not cut out fat if it is not causing you a problem. Reduce fatty foods temporarily if they make you feel worse but introduce again later.
- Some adults may find that avoiding milk and milk products may help. Take all milk products out of your diet for a day, and then put it back in gradually to about two cups in the day. Fermented milk or yoghurt can be used if available.
- For children: sometimes cow's milk or dried milks purchased from the shops can be a problem. If breastfeeding, continue, or increase breastfeeding. If available, fermented milk can be used for the older child.
- Try different foods until you find something that suits you or your child.

HANDOUT 5/4: Suggestions for treating nausea and vomiting

- Have enough liquid in the day. Try to use fluids such as, milk and other energy-rich drinks. This is particularly important for children.
- Drink liquids about half an hour after meals, rather than with meals.
- Drink liquids slowly.
- Eat small, frequent meals: eat something every 2-3 hours.
- Eat whenever you are hungry or feel like eating. Do not wait until mealtime.
- On days when you feel better, eat well by increasing the quantity and variety of your food intake (three meals a day plus snacks in-between).
- Chew foods well to make them easier to digest.
- Eat slowly and relax after eating. Avoid lying down immediately after a meal.
- Eat high energy snacks available: nuts, yoghurt, and bread with spread.
- Some people find sour foods easier to eat than sweet foods.
- Avoid cooking smells; ask someone else to prepare food.
- A walk in the fresh air before meals and eating in a well-ventilated room may help.
- Try dry foods such as dry bread, toast or plain biscuits and keep meals dry.
- Avoid large amounts of fizzy drinks and beer that can make you feel bloated.
- Choose foods that do not have a strong smell. Cold foods generally have less smell.
- Increase starchy foods and reduce fatty foods temporarily.
- Nausea may be a side-effect of drug treatments; talk to your doctor about it.
- There are also medications which can reduce nausea, so discuss these with a health worker if needed.

HANDOUT 5/5: Preparing an oral re-hydration solution (ORS) for treating dehydration

- Use clean water, boiled if possible.
- ***From a packet:*** Follow directions on the packet.
- ***With salt and sugar:*** To one litre of water, add half a teaspoon of salt and eight teaspoons of sugar. Stir or shake well. The solution should taste no more salty than tears.
- ***With powdered cereals:*** To one litre of water, add half a teaspoon of salt and eight teaspoons of powdered cereals. Rice is best, but fine ground wheat flour, maize, sorghum or cooked mashed potatoes can also be used. Boil for five to seven minutes to make a liquid soup or watery porridge. Cool the drink quickly.
- In addition to ORS, also eat and drink foods and fluids that are tolerated.

Session 6: Preventing weight loss and promoting physical activity

Learning objectives

By the end of this session, participants will be able to:

- Explain the importance of maintaining body weight;
- Describe ways to increase energy intake and reduce weight loss; and
- Outline the importance of physical activity for people living with HIV.

1. Introduction

- AIDS is characterized by progressive weight loss and wasting.
- Lean body muscles make up most of the body weight and are responsible for various functions in the body. As damage to the defence system and weight loss increases, the body becomes less able to perform these functions.
- When a person does not eat enough food, or the food eaten is poorly absorbed and utilized, the body derives energy from its own stores of fat and muscle. As a result, the person loses weight because body fat and muscles are lost.

2. Importance of maintaining good body weight

- Weight loss leads to general weakness, lower immunity and increases the progression of HIV to AIDS.
- Weight loss increases the chances of getting severe infections that may further lead to weight loss, thus resulting in a vicious cycle.
- Maintaining good body weight and preventing weight loss can improve the quality of life and delay the onset of illness. People with symptomatic HIV need to increase weight and build muscle stores in order to prevent further weight loss.
- In this session, we will discuss weight loss, ways to increase energy intake and the benefits of physical activity.

3. Assessment of weight loss

- In some cases, weight loss may be so gradual that it is not easily detected.

THE STORY OF SAM AND SUZI

- Sam has lost weight but he is not sure because he does not have a weighing scale.
- Sam can detect whether he is losing weight if :
 - his clothes are getting looser, he finds that he increasingly needs to tighten his belt; and/or
 - people around him repeatedly comment that he looks thinner.
- It is necessary to discuss with Sam the importance of regular check-ups for early identification of weight loss and other infections requiring prompt action. His weight should be monitored and recorded regularly, preferably on the same day each month. This may require a regular visit to the local health care and support centre.

- It is important to discuss with the people with whom you work the feasibility of regular visits to the care and support centre. There should not be long intervals between visits.

4. Suggestions for preventing weight loss and regaining lost weight

- A person experiencing weight loss can try one or more of the following strategies to gain weight:
- **Increasing the quantity and variety of energy-rich foods:**
 - Eat more staples and starchy foods such as, bananas, bread, maize, millet, potatoes, rice, sorghum, and wheat and continue to eat more until recovering initial weight. One portion of such staples is about one fistful (*see Handout 3/1* discussed in *Session 3*). Gradually increase the portions until reaching about six or more portions a day.
 - Increase intake of beans, lentils, peas, groundnuts, peanut butter and seeds, such as sunflower and sesame.
 - Include all forms of meat, poultry, fish and eggs as often as possible. Minced meat, chicken and fish are easier to digest. Offal such, as kidney and liver are also a good source of nutrients that can contribute to reversing weight loss.
 - Introduce more dairy products such as, full-cream milk, sour milk, buttermilk, yoghurt and cheese into the diet.

-
- Gradually increase intake of foods containing fats/oils, oilseeds such as, groundnuts, sesame and avocados.

 - **Adding extra nutrients to foods or meals:**
 - Adding extra nutrients to foods/drinks is called '**enriching foods**'. Food/drinks can be enriched by:
 - Making a hot drink with milk instead of water;
 - Eating more concentrated foods e.g., eating the solid pieces of a stew/soup before consuming the liquid part;
 - Increasing the fat content of food, e.g., by adding five to six teaspoons of fats/oils to food per day; if problems resulting from high fat intake are experienced, (especially diarrhoea), reduce the amount of fat in the diet until the symptoms pass; then gradually increase it to a level that can be tolerated;
 - Including dairy products such as, full-cream milk, sour milk, buttermilk, yoghurt and cheese in meals; adding milk, or milk powder to foods such as stews, soups, porridge, cereals, and mashed potatoes. Note that some people may find milk difficult to digest; milk should be avoided, if it causes cramps, bloating, or skin rashes;
 - Adding protein-rich foods such as, beans, lentils, groundnuts, peanut butter or eggs to maize, millet, or cassava porridge; and
 - Adding one to two teaspoons of extra of sugar, honey and other sweet products to food.

 - ☆ While increasing the fat content of foods can help to regain lost weight, care should be taken that sugary and fatty foods are not eaten as substitutes for more nutritious foods.

 - **Eating more frequently and increasing the amounts of food:**
 - Increasing the number of meals and snacks eaten daily; and/or eating larger amounts of food, especially at times when one is feeling like eating;
 - Including snacks that are readily available and can be eaten without much preparation in-between meals. Snacks may include foods such as, nuts, seeds, fruits, yoghurt, carrots, boiled cassava/sweet potatoes, chips, and peanut butter sandwiches.

 - ☆ Eating at least three meals a day and snacks in-between can prevent weight loss and reduce the likelihood of malnutrition.

Other suggestions to recommend to people experiencing weight loss, including how to add extra nutrition to everyday food and how to deal with appetite loss are provided in Handout 6/1 and 6/2 found at the end of this section.

5. Other factors that influence weight loss

- In addition to increasing food intake, it may be necessary to:
 - Prevent other infections by immunization, de-worming and anti-retroviral treatment; this can be done when the person visits the health care and support centre regularly;
 - Treat other infections, such as tuberculosis, that may contribute to weight loss; and
 - Increase strength and preserve muscles by increasing physical activity.

6. Role-play 6A: Weight concerns

Sam has come to see the health worker because he is worried that he is losing weight. Listen to the conversation between the health worker and Sam and list the counselling skills the health worker is using as well as the reactions of Sam.

ROLE-PLAY 6A: Weight concerns

		COMMUNICATION SKILL USED
HEALTH WORKER	Good morning, Sam. Please sit down, how can I help you today?	
SAM	Good morning. I have been losing weight recently and this is not a good sign.	
HEALTH WORKER	You are worried about the weight loss.	
SAM	Yes. It is probably just the HIV getting worse. Suzi said to come to talk to you.	
HEALTH WORKER	It is good that you came to talk. Weight is important. It helps you to stay well longer if you can keep your weight up.	
SAM	How do I do that? Sometimes I just do not feel like eating anything.	
HEALTH WORKER	Well, one suggestion is to have some ready-and-easy to eat foods available. Perhaps some nuts, yoghurt, or bread with something on it, which do not require a lot of preparation. Also try to eat something every 2-3 hours: small frequent meals rather than just one large meal. Could you do that?	
SAM	I don't know. I have trouble making myself eat once a day. I could not face eating every few hours.	
HEALTH WORKER	It is hard to think about eating sometimes. When you do feel like eating, you could add extra nutritious foods to your	

	meals. For example, add milk, cheese, butter or oil to mashed vegetables, or to soups. What do you think about adding such extra foods to your meals?	
SAM	I can try that. There is usually oil and sometimes there is extra milk in the house.	
HEALTH WORKER	You can try to add extra nutritious foods to your meals, to eat something small every few hours and also drink water and other fluids frequently. There are some other ideas that you might like to try in this leaflet. You can also bring whoever cooks and shops for food in your household in to talk, if that would help. Come back again if you want to talk more.	
SAM	Thank you. I will show the leaflet to my wife and we can talk to you again maybe.	

- Sam starts to feel a lot better and is also able to eat better. Because he sought care early, he avoided further weight loss and getting more infections.

☆ KEY POINT ☆

When symptoms start, increase energy intake to reduce or prevent weight loss.

7. Physical activity

- To further build up the body, physical activity should be encouraged during the early stages of HIV and during the symptomatic phase.
- Physical activity is generally good for everyone.
- Physical activity may include daily activities such as, household chores and light work in the garden or in the field. Light activity each day is better than intensive exercise once a week.
- Activity may be limited if food intake is very low and the person is very weak.

OVERHEAD 6/1: Benefits of physical activity

Physical activity can:

- Strengthen and build muscles;
- Strengthen bones;
- Strengthen the immune system;
- Help relieve stress;
- Increase appetite;
- Help digestion;
- Help the heart and lungs to work well; and
- Improve one's sense of well-being.

☆ Physical activity uses up energy so it is important to increase one's food intake. It is also necessary to drink extra water when exercising.

8. Role-play 6B: Physical activity

- The health/nutrition worker talks with Sam to find some physical activity that Sam could do regularly. List the counselling skills the support worker is using as well as the reactions of Sam.

ROLE-PLAY 6B: Physical activity

		COMMUNICATION SKILL USED
HEALTH WORKER	Good morning, Sam. You are looking well today. How are you feeling?	
SAM	Good morning. I am feeling better since the last time we talked. Now I have more energy so I was thinking about what you said about being more active.	
HEALTH WORKER	Yes, activity can help to maintain your strength. What physical activity do you do at the moment?	
SAM	Well, when I was ill recently, I stopped doing most activities.	
HEALTH WORKER	Well what about starting gently? Maybe a walk with your young son or playing ball with him for 10 or 15 minutes. How does that sound?	
SAM	I could do that easily I'm sure.	

HEALTH WORKER	Maybe you could also try weight lifting! Lift your son up a few times and increase the number of lifts as you can. This can strengthen your muscles. Would you be able to do some lifts?	
SAM	Yes, probably. When you think about it, there are exercises I can easily do around the house.	
HEALTH WORKER	Physical activity does not need to be special exercises. We can do a lot by just increasing our normal activity. Try it for a few weeks and come back again if you want to talk more.	
SAM	Thank you. I will see how I get on with increasing my activity.	

- Sam now feels well enough to increase his physical activity which will further help him build up his body, increase his appetite, boost his immune system and improve his general sense of well-being.

☆ KEY POINT ☆

Physical activity can help you to feel better.

9. Summary of the session

- Maintaining a good body weight can improve the quality of life for people with HIV. Aim to check weight regularly and to act promptly if weight loss starts.
- Physical activity can help improve appetite and one's general sense of well-being.
- The key points on 'eating wisely' discussed in *Session 3* should continue to apply when symptoms of weight loss start.

HANDOUT 6/1: Suggestions on how to add extra nutrition to everyday food

- Add milk, cheese, butter or oil to mashed vegetables, potatoes, rice, soups, stews and other foods.
- To make fortified milk, add 4 spoons (15 ml spoon) of milk powder to 500 ml cow's milk. Stir well and keep in a cool place. Use full fat milk powder if available instead of skimmed milk powder. Use this fortified milk in tea, on cereals and in cooking.
- Milk powder can also be added to soups to give more protein.
- Stir a beaten egg into hot porridge or mashed potatoes and cook for a few minutes more to cook the egg. Do not eat raw or undercooked eggs. Always cook eggs.
- Put extra spread on sandwiches, e.g. nut spreads, jam, butter/margarine, tinned fish.
- Nuts are a good source of energy. Keep them near to eat as a snack and put chopped nuts or paste into foods.
- Add cream, evaporated milk or yoghurt to soups, puddings, cereals and milky drinks.
- Use local foods that are rich in fat, such as avocado, fatty fish, coconut oil and fried foods, if tolerated.
- Sprinkle crispy fried onions, fried fatty meat or similar on top of meals.
- Eat chocolates, sweets, dried fruits such as raisins and dates as an extra, not as a replacement for a meal.

HANDOUT 6/2: Suggestions on what to try if you do not feel like eating

- Eat small, frequent meals; eat something every 2-3 hours.
- Eat whenever you are hungry or feel like eating. Do not wait until a mealtime.
- Choose foods that you enjoy most. You are more likely to eat these foods.
- On days you feel well, eat well.
- A walk in the fresh air before eating and eating in a well-ventilated room may help.
- Eat with family or other people so it is a social event. If you are in bed, have them eat at your bedside. Children may sometimes eat better with others; other times this may be too much of a distraction. Be prepared to try different ways. Always stay with the child while eating, both to watch for difficulties and to encourage eating.
- Make sure you have enough liquid in the day. Try to take fluids such as milk and other energy-containing drinks. This is particularly important for children.
- Eat slowly and relax for a while after eating. Avoid lying down immediately after a meal.
- Make meals as attractive as possible, e.g. enhance the presentation of food by using garnishes, setting the table nicely.
- Some foods may stimulate the appetite such as ginger tea, or lemon juice In clean boiled water
- When the appetite has returned or the illness has passed, be sure to eat extra (or feed the child more) to make up for the missed meals.
- Lack of appetite may be a sign of an infection such as tuberculosis or of depression; talk to your doctor about it.

Session 7: Nutrition for people on anti-retroviral treatment

Learning objectives

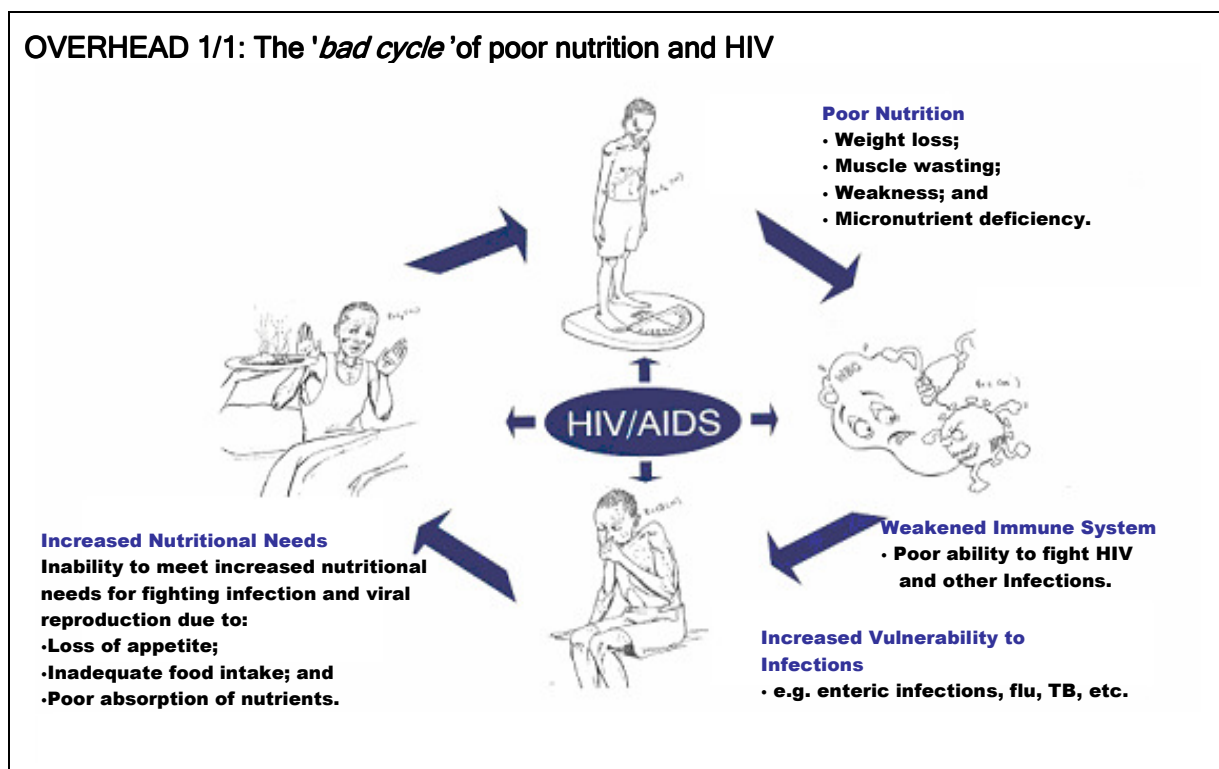
By the end of this session participants should be able to:

- Explain the food and nutrition implications of antiretroviral treatment (ART);
- Discuss the importance of nutrition for people living with HIV on ART; and
- Identify best nutrition practices and discuss drug-meal plans for people on different drug regimens.

1. Introduction

- When the cycle of HIV and malnutrition repeats itself many times over several years, the body's natural defence system is severely reduced and the HIV is able to multiply rapidly, thus increasing the viral load and the chances of other infections.
- At this stage, ART is recommended to slow down or stop multiplication of HIV. ART work better when given in combinations of three drugs. ART helps improve the body's defence system, and enhances the patient's survival and quality of life.
- ☆ As a counsellor, it is important to be familiar with the local/regional procedures for accessing ART in order to advise people living with HIV to consider ART when their body starts getting weaker.

OVERHEAD 1/1: The 'bad cycle' of poor nutrition and HIV



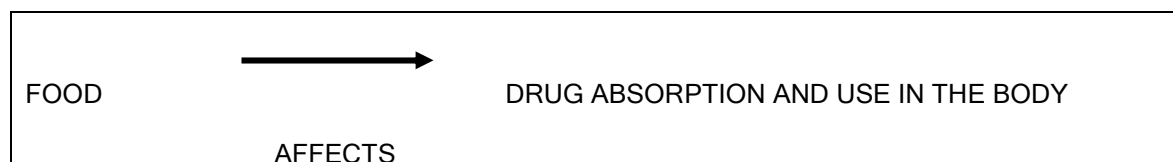
2. Importance of nutrition for ART

- For the ART to work well there is need for regular food supply, good nutrition plan and continuous support to ensure healthy eating.
- Poor nutrition reduces the ability to **absorb** medication and the person may find it harder to cope with the side-effects.
- Good nutrition will improve the effect of ART helping the person recover their **defence system** and improving the overall well-being.
- ART can also **interact with food** and nutrients resulting in good or bad effects. Some drugs only work properly when taken at a specific time in relation to a meal.
- Starting ART is a life-long commitment to medication. Enduring the initial period of unpleasant side-effects requires regular food supply, good nutrition plan and continuous support to ensure healthy eating.
- In this session, we will discuss basic information on **interactions of ARV drugs** with food and nutrition and what actions we can take to support healthy eating and adherence to medication.

3. Interactions between drugs, food and nutrition

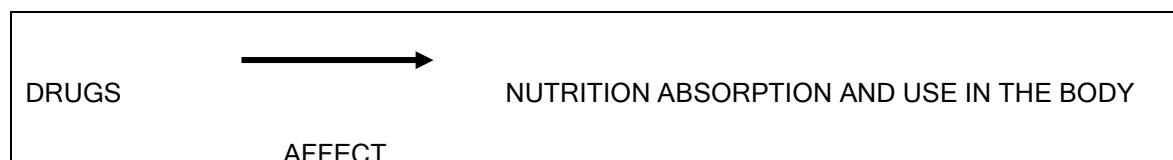
OVERHEAD 7/1: Interaction between drugs, food and nutrition

a) When taken with ARV drugs, certain foods may increase or reduce use of the drug by the body.



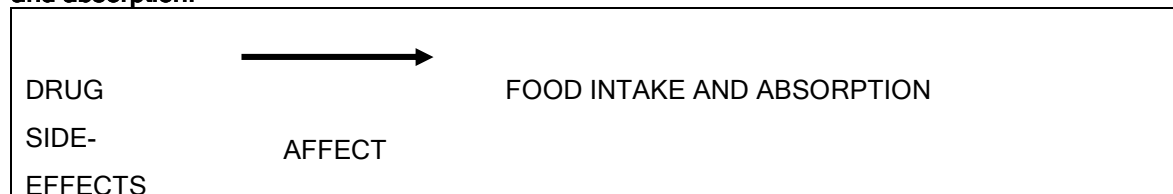
■ *Example:* Fatty foods and fatty meals may reduce absorption of ARV drugs such as **efavirenz** (or other brands used locally).

b) Certain ARV drugs affect the way nutrients are used in the body.



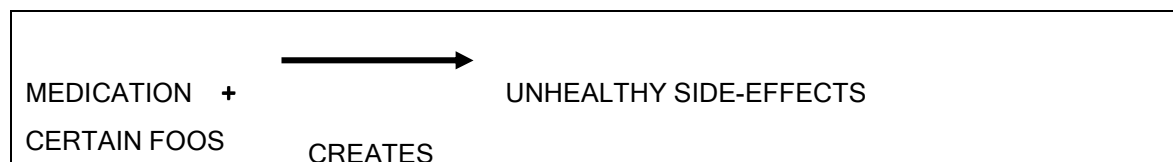
■ *Example:* ARV drugs such as, **d4T** (or other brands used locally) may change the way the body uses fat and carbohydrates.

c) Side-effects such as changes in taste, headache, fever, diarrhoea and vomiting reduce food intake and absorption.



■ *Examples:* Some medications, e.g. **3TC** and **d4T** (or other brands used locally) may lead to change in taste; AZT may also cause nausea and vomiting, resulting in reduced food intake and weight loss.

d) The interaction of certain ARV drugs with certain foods may create unhealthy side effects.



■ *Examples:* Intake of drinks containing alcohol together with ARV drugs may cause liver and pancreas problems. Alcohol is also often cause of poor adherence to treatment and may reduce the appetite of the person living with HIV.

■ Intake of some herbal remedies together with ARV drugs may increase severe-side effects.

■ Counsellors need to make people taking ARV drugs aware of the interactions of such foods with the drugs they are taking so that these foods can be avoided or reduced.

☆ KEY POINT☆

☆ Understanding medication side-effects helps careful selection of foods for preparing nutritious meals and a good nutrition plan.

4. Nutrition practices for managing the side-effects of ARV drugs

- While majority of people who take ARV drugs experience some side-effects, the frequency and severity of side-effects varies for different ARV drugs and different individuals. A combination of three different ARV drugs is usually given to patients and the interactions of each drug with food must be considered.
- Good diet and regular food intake helps to improve adherence to treatment which is critical for
 - The well-being of people living with HIV
 - Treatment effectiveness
 - Preventing drug-resistance
- The goals of nutrition counselling for people on ART are to:
 - Reduce minor side-effects that can result in reduced food intake, e.g., changes in taste, headache, fever, nausea and vomiting, upset stomach and diarrhoea.
 - Reduce chronic side-effects such as, increased blood sugar, high fat levels in the blood and liver or kidney damage.
 - Improve the general well-being of people living with HIV who are on ART.
- Failure to manage the interactions between various foods and ARV drugs, may result in reduced food intake. The patient may also interrupt or stop taking the medication. Interrupting ART or taking it incorrectly may lead to:
 - Poor health, frequent infections and faster progression of the disease; and
 - Drug-resistant HIV leading to failure of treatment.
- Suggestions for nutrition practices should be based on a clear understanding of the specific requirements of the drugs that a person is taking.

4.1 Supporting management of ARV and food/nutrition interactions

OVERHEAD 7/2: Supporting the management of ARV drugs and food/nutrition interactions

- Know and understand what medication the client is taking (*see Handout 7/1*) and make the client and other treatment supporters or family members aware of their potential side-effects.
- Discuss how to adjust the timing of drug and food intake as appropriate.
- Discuss how to manage the possible side-effects and difficulties that may reduce food intake.
- Identify foods to be increased, decreased or avoided, depending on their effects on drug absorption.
- Support the client to identify locally available foods that would help in healthy eating based on:
 - The 'Eating wisely' guidelines;
 - Drug-food interactions; and
 - The nutritional needs of the person.
- Support the client to make a drug-meal plan that will guide him/her in choosing appropriate foods for different meals (**Exercise 7/1**).
- Follow up and assess any difficulties and support in making necessary adjustments.
- Seek help through the referral system to other programs and services that address food and nutrition issues, (e.g., nutritional counselling services, programs focused on promoting household access to food) as needed.

4.2 Supporting management of ARV and food/nutrition interactions

- Refer to **Handout 7/1: "Recommended nutrition practices for dealing with the side-effects of ARV drugs"** available at the end of this section.
- These are examples of different drugs, their-side effects and the recommended nutrition practices to reduce these side-effects.

5. Making a drug-food plan

THE STORY OF SAM AND SUZI

- Sam is feeling weak and his health has generally deteriorated. His doctor recommends several test and some drugs.
- Based on the test results, the doctor needs to start Sam on ART. Sam is prepared and enrolled for ART.
- His treatment consists of a combination of three drugs: d4T + 3TC + EFV.

5.1 Identifying the medication being taken

	Medication being taken
Morning	d4T + 3TC
Night	d4T + 3TC + EFV

5.2 Special instructions

Inform the client that:

- The absorption of some ARV drugs is not affected by the foods consumed, but taking them with food can help reduce their side-effects.
- Avoiding fatty foods can improve absorption and use of ARV drugs.
- Avoiding alcoholic drinks will reduce side-effects.

5.3 Nutrition related symptoms and their management

- Mouth ulcers (sore mouth/sore throat): *see Handout 5/1 (Session 5)*
- Excessive gas in the stomach, stomach discomfort diarrhoea: *see Handout 5/3 (Session 5)*
- Nausea, vomiting and loss of appetite: *see Handout 5/4 (Session 5)*
- Fever: Drink plenty of fluids and eat energy and nutrient-rich foods, i.e. adding seeds, such as groundnut or sesame pastes or peanut butter or eggs to maize/millet/cassava porridge.
- High fat levels in blood: Closely monitor intake of fatty foods and meals. Eat plenty of fruits and vegetables daily; increase physical activity according to the capacity of the patient.

5.4 Meal planning

Refer to **Handout 7/2** found at the end of this section.

☆ KEY POINTS☆

ART works better in people who have good nutritional practices.

6. Medication and physical activity: Role-play 7

- The health/nutrition worker talks with Sam about his medication and physical activity. List the counselling skills the support worker is using as well as the reactions of Sam.

ROLE-PLAY 7: Discussion with Sam about medication and physical activity		
		COMMUNICATION SKILL USED
HEALTH WORKER	Welcome, Sam. Please sit down. How are you today?	
SAM	Well, I am OK. I have come to talk to you more about the medication which I have been taking.	
HEALTH WORKER	Yes, It is good that you came to talk about your medicine. How are you doing with your medication?	
SAM	Well, I feel better since I started taking them. However, sometimes I really have difficulties after taking them in the morning. I vomit and sometimes I just do not feel like eating at all.	
HEALTH WORKER	Yes, the medication sometimes may make you feel like vomiting and cause difficulties in eating. How do you take your medication in the morning?	
SAM	I take my medication in the morning as soon as I wake up. This way, there are less chances of forgetting to take my medicine.	
HEALTH WORKER	That's a very good idea. What do you take your medication with?	
SAM	I swallow my medicine with lots of water.	
HEALTH WORKER	Do you think that you could try eating or drinking something else with your medication? Maybe taking the medication on an empty stomach might be the reason for you feeling like vomiting.	

ROLE-PLAY 7: Discussion with Sam about medication and physical activity		
		COMMUNICATION SKILL USED
SAM	It is very difficult for me to eat anything early in the morning. I have even stopped going for my morning walks because I always start feeling like vomiting on my way back.	
HEALTH WORKER	A walk in the fresh air is very useful. How about starting with the walk in the morning and trying to take your medication with some food when you get back?	
SAM	I could try that. Suzi always makes some thick porridge to which she adds lemon and sugar which I like very much.	
HEALTH WORKER	Yes, porridge is good and will give your body strength, adding lemon will prevent you from feeling like vomiting. I am glad that you like it.	
SAM	The feeling of vomiting always comes before meal times and even when I am hungry, I do not feel like eating.	
HEALTH WORKER	Well, try not to keep your stomach empty. You do not have to wait only for meal times before you eat. Maybe you could also try taking something every 2-3 hours, even if it is only a glass of milk a piece of fruit, vegetables, yoghurt or toasted bread and peanut butter.	
SAM	Yes, probably I could try that. There is always some milk, bananas and oranges in the house.	
HEALTH WORKER	That would be great. Can you try that for two weeks? And then you can come back and we can talk about how it went.	
SAM	Thank you. I will see how I get on with the plan. Good-bye.	
HEALTH WORKER	Good-bye.	

7. Summary of the session

☆ KEY POINTS☆

Understanding medication side-effects helps careful selection of foods for preparing nutritious meals and a good nutrition plan.

ART works better in people who have good nutritional practices.

- ART works better in people who have good nutritional practices. Before or during initiation of ART people with HIV need to be supported to eat wisely. Good nutrition will strengthen their body's ability to absorb medication and reduce side-effects.
- Appropriate dietary changes can help to manage and reduce the impact of certain ARV drug side-effects on nutrition.
- It is important to use drug-specific information when managing the interactions between ARV drugs, food and nutrition.
- Failure to manage drug-food/nutrition interactions may lead to the person interrupting or stopping taking medication. This can result in poor health and drug-resistant HIV which cannot be effectively treated.
- ART can improve the health of PLHIV; but it can also create additional food and nutritional needs. Always discuss and follow up with clients to assess any difficulties and to provide support in making necessary adjustments.

HANDOUT 7/1: Nutrition practices for reducing side-effects of ARV drugs

MEDICATION	POTENTIAL SIDE-EFFECTS	RECOMMENDED NUTRITION PRACTICES
Zidovudine (AZT)	Fatigue, anaemia, gastrointestinal intolerance (nausea, vomiting, abdominal pain, dyspepsia, diarrhoea, flatulence, constipation), taste disturbance, headache, fever, anorexia, somnolence, insomnia.	<ul style="list-style-type: none"> ▪ Take with food to reduce side effects.
Lamivudine (3TC)	Nausea, vomiting, diarrhoea, abdominal pain, headache, fatigue, insomnia, malaise, fever, rash, anaemia.	<ul style="list-style-type: none"> ▪ Take without regard to meals.
Combivi (3TC/AZT)	<i>Similar to AZT and 3TC.</i>	<ul style="list-style-type: none"> ▪ Take without regard to meals.
Didanosine ddl	Nausea,; diarrhoea, nausea, vomiting, dry mouth, headache, hypoglycaemia, liver failure, insomnia, dizziness, may cause problems with the pancreas.	<ul style="list-style-type: none"> ▪ Take on an empty stomach 1 hour before or 2 hours after a meal. ▪ Do not take with juice, antacids or supplements that contain aluminium or magnesium.
Abacavir ABC	Hypersensitivity, fever, rash, headache, Loss of appetite, nausea, vomiting, diarrhoea, anorexia, fatigue, malaise, sore throat, cough, shortness of breath. Alcohol increases levels. Rash and gastrointestinal disturbances more common in children.	<ul style="list-style-type: none"> ▪ Take without regard to meals.
(ABC, 3TC, AZT)	<i>See individual profiles.</i>	<ul style="list-style-type: none"> ▪ Take with food to reduce side effects.
Stavudine D4T	Nausea, vomiting, diarrhoea, constipation, anorexia, abdominal discomfort, chest pain, dyspnoea, headache, dizziness, insomnia, mood changes, abnormal dreams, cognitive dysfunction, drowsiness, depression, anxiety, rash. May cause problems with fat storage in the body.	<ul style="list-style-type: none"> ▪ Take without regard to meals. ▪ Avoid alcohol.
Nevirapine NVP	Rash, nausea, hepatitis, headache. Less commonly, vomiting, abdominal pain, fatigue, fever. Rarely diarrhoea.	<ul style="list-style-type: none"> ▪ Take without regard to meals.
Efavirenz EFV	Rash, abdominal pain, diarrhoea, nausea, vomiting, anxiety, depression, dizziness, headache, insomnia, somnolence, abnormal dreams, fatigue, impaired concentration.	<ul style="list-style-type: none"> ▪ Take on an empty stomach.
Indinavir IDV	Taste change (metallic taste), gastrointestinal intolerance (nausea, diarrhoea, abdominal pain, vomiting, dyspepsia, flatulence), headache, blurred vision, dizziness, rash, hyperglycaemia, may cause problems with fat storage in the body.	<ul style="list-style-type: none"> ▪ Take on an empty stomach 1 hour before or 2 hours after a meal. ▪ May take with skim milk or low-fat, light meal. ▪ If given with didanosine allow 2 hours between the drug.s

MEDICATION	POTENTIAL SIDE-EFFECTS	RECOMMENDED NUTRITION PRACTICES
Ritonavir RTV	Taste changes, gastrointestinal intolerance (nausea, vomiting, diarrhoea, abdominal pain, dyspepsia, anorexia), throat irritation, headache, drowsiness, dizziness, sleep disturbances, fatigue, rash, dry mouth and ulceration, anxiety, fever, weight loss, sweating, anaemia, hyperlipidemia, hyperglycaemia, fat maldistribution.	<ul style="list-style-type: none"> ▪ Take with food to decrease side effects.
Indinavir Ritonavir	<i>See individual profiles.</i>	<ul style="list-style-type: none"> ▪ Food has little effect. Take with food to reduce side effects.
Saquinavir SQV	Gastrointestinal intolerance (nausea, vomiting, diarrhoea, abdominal pain, buccal and mucosal ulceration), taste disturbances, headache, chest pain, dizziness, insomnia, mood changes, fatigue, fever, rash May cause problems with fat storage in the body, hyperglycaemia.	<ul style="list-style-type: none"> ▪ Take within 2 hours of a meal when taken with RTV. ▪ Administer with or after food. ▪ Avoid garlic.
Nelfinavir NFV	Diarrhoea, nausea, vomiting, flatulence, abdominal pain, rash, fever, pruritus, hyperglycaemia, hyperlipidemia, fat maldistribution.	<ul style="list-style-type: none"> ▪ Take with or after food. ▪ Powder may be mixed with water, milk, pudding. ▪ It should not be mixed with acidic foods or juices because of its taste.
lopinavir/ Ritonavir	Gastrointestinal intolerance (nausea, vomiting diarrhoea), anorexia, anaemia, sleep disturbances, fatigue, headache, dizziness, taste disturbances, rash, hyperlipidemia, hyperglycaemia, fat maldistribution.	<ul style="list-style-type: none"> ▪ Take with food.
Tenofovir TDF	Headache, diarrhoea, nausea, vomiting, abdominal pain, flatulence, anorexia, dizziness, headache, insomnia, depression, sweating, rash, renal insufficiency.	<ul style="list-style-type: none"> ▪ Take without regard to meals. ▪ Tablets can be dissolved in at least 100 ml water, orange juice or grape juice for patients with difficulty swallowing.

- This list should be kept up-to-date.
- It is also generally recommended that when taking ARV drugs, one should avoid intake of:
 - Drinks containing alcohol which may cause liver and pancreas problems;
 - Fatty foods and foods high in sugar which may reduce absorption of most ARV drugs
- Drinking plenty of safe water, about 8 glasses a day, is also recommended to reduce side-effects of the medication.

HANDOUT 7/2: Nutrition practices for reducing the side-effects of ARV drugs (Worksheet)

MEAL	ART	LIST OF FOODS TO BE TAKEN
Morning		
Mid-morning		
Mid-day		
Mid-afternoon/ Evening		
Night		

Session 8: Nutrition for pregnant and breastfeeding women with HIV

Learning objectives

By the end of this session, participants will be able to:

- Discuss the nutritional concerns of pregnant or breastfeeding women living with HIV; and
- Discuss good nutrition practices for pregnant and breastfeeding women living with HIV.

1. Introduction

- Food is important for all of us. Pregnant and breastfeeding women have extra nutritional requirements due to the changes in their bodies and the needs of the growing baby. This is the same for all pregnant women, whether they are HIV-infected or not. Pregnant and breastfeeding women with HIV are at a higher risk of infection, malnutrition and premature birth and will require extra energy and other nutrients.
- In this session, we will discuss how to provide support to pregnant and breastfeeding mothers with HIV to increase their food intake and to meet energy and other nutrient needs.

2. Nutritional concerns of pregnant and breastfeeding women with HIV

- Pregnant and breastfeeding women with HIV will need:
 - Extra food for body functions;
 - Extra food for changes in their body and the needs of the growing baby;
 - Extra food to replace nutrients lost due to HIV infection; and
 - Extra food for growth and development if the mother is adolescent (12-16 years).
- Mothers who eat wisely during pregnancy and breastfeeding are likely to:
 - Be more healthy and not be ill so often;
 - Gain enough weight during pregnancy and breastfeeding;
 - Reduce chances of HIV transmission to their babies;

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- Have babies with good weight and good health; and
 - Feed and care for their babies properly.

3. An ‘eating wisely during pregnancy’ demonstration talk

3.1. Demonstration talk: ‘Eating wisely during pregnancy’

- Information on appropriate nutrition during pregnancy is presented in this section as a part of a talk on ‘Eating wisely during pregnancy’.
- This talk might be part of a longer talk that includes more information on how to eat wisely in general.

THE STORY OF SAM AND SUZI

- Suzi and Sam attend the antenatal clinic during the pregnancy.
- During one of their visits there is a talk about eating wisely during pregnancy. Sam comes to hear the talk with Suzi.

- Encourage mothers to include friends or family members in the discussions, so that they too can understand the mother’s need for adequate food and rest both before and after the baby is born.

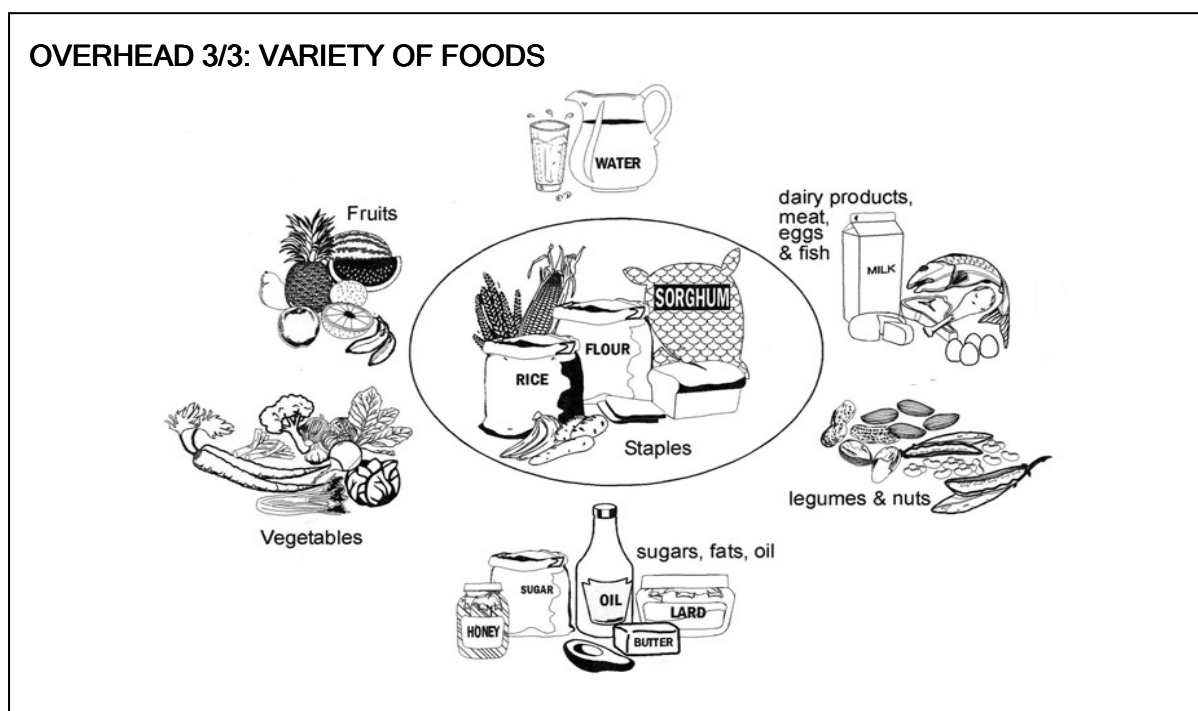
☆ KEY POINT☆

Eating wisely during pregnancy helps the mother and the baby to stay healthy.

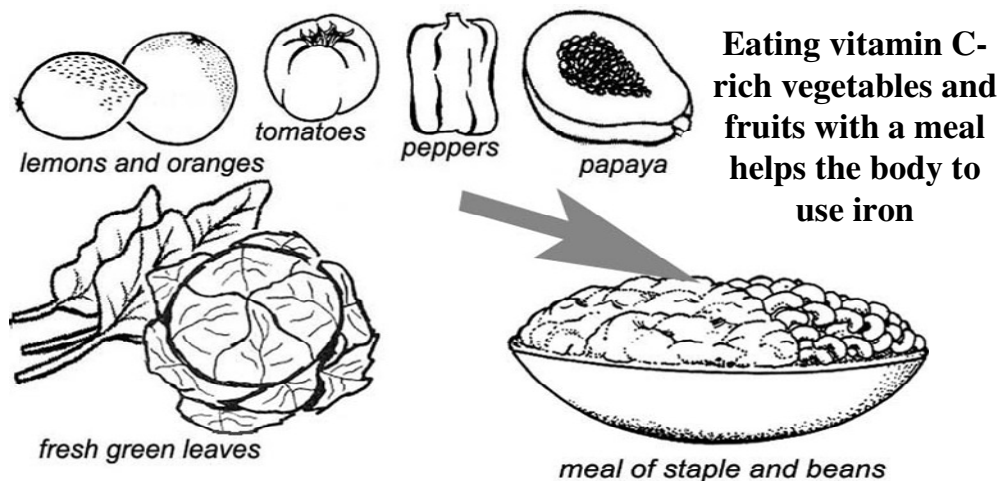
- Food is important for all of us. A pregnant woman has extra nutritional needs due to the changes in her body and the needs of the growing baby. This is the same for all pregnant women, whether they are HIV-infected or not.
- When eating wisely, you aim to eat a variety of foods to ensure that you get all the nutrients you require.
- Animal foods are particularly valuable to eat during pregnancy. They are a good source of iron. The iron from animal foods is well absorbed by the body. Iron reduces anaemia, which is common

in women during pregnancy. People who are anaemic get tired easily and are more likely to get infections. It is therefore, important to increase daily intake of animal foods.

- Beans, peas, lentils, and dark-green leafy vegetables contain iron but this iron may not be well absorbed by the body. However, iron absorption can be increased by eating these foods with vegetables and fruits rich in vitamin C such as, tomatoes or lemons.



- Drinking tea or coffee with meals reduces the absorption of iron we get from the foods in that meal.
- More information on iron absorption is explained in **Handout 8/1: 'Increasing iron absorption'** found at the end of this section.

OVERHEAD 8/1: Increasing iron absorption

- Foods may also have iron added to them (find out about locally available and affordable foods that are fortified with iron). Increase the use of these foods during pregnancy.
- Your doctor or midwife will talk to you if you need vitamin and mineral supplements. If they are given to you, only take what you are told you need. More is not always better; too much supplements can also cause problems.
- During pregnancy, you are storing food for your body to use during the pregnancy, at birth and during the first few months of the baby's life. As the baby grows during pregnancy, your weight should increase. If you are not gaining weight, you may need to eat more food and eat more often.
- Physical activity and fresh air are good for you when you are pregnant. A walk outside in sunlight also helps strengthen your bones and those of your baby.
- You may experience heartburn and nausea, as well as a change in taste and appetite when you are pregnant. It may help if you have small frequent meals, drink more fluids and avoid foods that make you feel ill.
- A pregnant woman may also suffer from constipation. It may help to eat more vegetables and fruit as well as whole grain cereals. Drinking plenty of clean water is also important.
- Let your midwife or doctor know if you are experiencing constipation, heartburn and other problems that may reduce food intake. Do not wait until after the baby is born to see if your eating or weight improves.
- Safe food and water are very important for all pregnant women. Unsafe food and water can lead to diarrhoea and vomiting, resulting in weight loss and, in very severe cases the loss of the baby.

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- The main points to remember from this talk are:
 - Pregnant women need to eat wisely for their own health and the health of their baby.
 - Eating a variety of foods ensures getting all the nutrients needed; animal foods are particularly valuable.
 - Watch your weight; eat larger quantities of food; extra meals and rest more often, if necessary.
 - Take vitamins, iron and folic acid as supplements if suggested by your doctor or midwife.
 - Visit the clinic regularly for early detection and treatment of infections.

4. Maternal nutrition during breastfeeding³

- It is hard work to recover from the birth of a child, to take care of a baby and perhaps other family members as well. All mothers need good nutrition and care, irrespective of their HIV status.
- Eating a variety of foods will ensure an adequate supply of all the nutrients a mother needs to stay healthy. Extra energy may mean eating an extra meal daily.
- During pregnancy, the body retains fluid and lays down fat stores to provide energy when breastfeeding. Women who breastfeed may lose this fluid and fat over 4-6 months after birth. This is normal and is not the same as wasting due to HIV infection.
- If the woman's weight after delivery is lower than her weight before pregnancy, even when she is eating well, her continued weight loss may be a sign of illnesses associated with HIV. Refer mothers who are losing weight and not feeling well to the clinic.

☆ KEY POINT ☆

Eating wisely during breastfeeding helps the mother and the baby stay healthy.

³ The risk of HIV transmission during breastfeeding is discussed in the next session.

5. Food beliefs and practices

- There are some specific beliefs and practices about foods for pregnant and breastfeeding mothers in different communities.
- Mothers need to be counselled and informed about food beliefs and practices that may be beneficial, neutral or harmful.
- **Worksheet 8/1: 'Food beliefs and practices'** (found at the end of this section) provides guidelines for discussing food beliefs and practices with mothers.

6. Summary of the session

☆ KEY POINTS☆

Eating wisely during pregnancy helps the mother and the baby to stay healthy.

Eating wisely during breastfeeding helps the mother and the baby to stay healthy.

- Good nutrition is important for all of us. Poor nutrition in a woman with HIV can affect her health and that of her baby. Poor nutrition may also facilitate transmission of HIV to her baby.
- Encourage pregnant, breastfeeding or new mothers to care for themselves and their baby by:
 - Eating wisely and including a variety of foods in their diets;
 - Eating food with enough vitamin and minerals; and
 - Visiting the clinic for early detection and treatment of any infections and to obtain guidance on vitamin and mineral supplements.
- When discussing about nutrition during pregnancy and breastfeeding with a mother, it is important to know if the woman has disclosed her HIV status to her family and friends. Some suggestions to improve nutrition may be difficult to follow if the woman has not disclosed her status.
- Mothers need to be counselled and informed about local food beliefs and practices that may be beneficial, neutral or harmful.

HANDOUT 8/1: Increasing iron absorption

- The amount of iron that a person absorbs from food depends on:
 - The **amount** of iron in the food;
 - The **type** of iron (iron from meat and fish is better absorbed than iron from plants, milk and eggs);
 - The types of **other foods present** in the same meal (some **increase** iron absorption, e.g. meat and citrus, while others **reduce** it, e.g. tea.); and
 - Whether the person has **anaemia** (more iron is absorbed if the person is anaemic).

- The amount of iron absorbed from eggs, milk and plant foods such as, low fibre cereals, pulses, seeds, and vegetables are **increased** by eating these together with the following in the same meal:
 - Foods rich in vitamin C, such as, tomato, broccoli, guava, mango, pineapple, paw-paw, orange and other citrus fruits;
 - Germinated or fermented cereals or pulses, such as, bean sprouts;
 - Small amounts (about 30 grams) of the flesh or organs/offal of animals, birds, fish and other seafood.

- Iron absorption is **increased** by:
 - Cooking in iron pots, particularly if the food is acidic.
- Iron absorption is **decreased** by:
 - Drinking teas (including herb or bush teas) and coffee;
 - Eating cereal foods high in fibre such as bran.

WORKSHEET 8/1: Finding out about food beliefs and practices in the local region

1. Do pregnant women in your area believe there are some foods or eating practices that are harmful during pregnancy?

2. Do pregnant women in your area believe there are some foods or eating practices that are special or beneficial during pregnancy?

3. Do breastfeeding women in your area believe there are some foods or eating practices that are harmful when breastfeeding?

4. Do breastfeeding women in your area believe there are some foods or eating practices that are special or beneficial when breastfeeding?

5. Can you identify the beneficial and harmful beliefs and practices? Give reasons.

Session 9: Feeding options for infants of HIV positive mothers

Learning objectives

By the end of this session, participants will be able to:

- Discuss the risks and benefits of the different feeding options for infants of HIV positive mothers; and
- Provide guidance to HIV positive mothers to choose the most suitable feeding options for their situation.

1. Introduction

OVERHEAD 9/1: Policy of supporting breastfeeding

“As a general principle, in all populations, irrespective of HIV infection rates, breastfeeding should continue to be protected, promoted and supported.”

HIV and Infant Feeding: A Policy Statement, developed collaboratively by UNAIDS/WHO/UNICEF, 1997.

- Breast milk supplies all the nutrients infants’ bodies need for growth and development during the first six months of their lives. In addition, breast milk protects them against infections and strengthens their immune system. However, HIV can pass from an infected mother to her baby during breastfeeding and care must be taken to reduce the transmission risk.
- For this reason, all pregnant women or new mothers with HIV need counselling which includes:
 - Information on the risks and benefits of locally appropriate infant feeding options; and
 - Guidance in selecting the most suitable infant feeding option for their situation.
- Whatever a mother decides, she should be supported in her choice.
- This session discusses the risks and benefits of different feeding options for infants of mothers who have been tested for HIV and found to be positive. We will also discuss some of the

information the counsellor needs to find out from the mother when assessing her situation and helping her to choose the most suitable feeding option for her situation.

- For further continued support in carrying out her choice, refer the mother to health workers who have been trained in both breastfeeding and HIV and infant feeding counselling.

2. Infant feeding options

2.1. Exclusive breastfeeding

- If a woman is HIV-negative or does not know her HIV status, exclusive breastfeeding is recommended for the first 6 months of the baby's life.

OVERHEAD 9/2: The United Nations Agencies' recommendation for HIV-positive women⁴

The most appropriate infant feeding option for an HIV-infected mother should depend on her individual circumstances, including her health status and the local situation, but should take greater consideration of the health services available and the counselling and support she is likely to receive.

Exclusive breastfeeding is recommended for HIV-infected women for the first 6 months of life unless replacement feeding is **Acceptable, Feasible, Affordable, Sustainable and Safe (AFASS)** for them and their infants before that time.

When **replacement feeding** is acceptable, feasible, affordable, sustainable and safe, avoidance of all breastfeeding by HIV-infected women is recommended.

OVERHEAD 9/3: Exclusive breastfeeding

Exclusive breastfeeding: Feeding the baby **only** breast milk without giving any other liquids or solids, not even water, with the exception of medically prescribed drops or syrups consisting of vitamins, mineral supplements or medicines.

⁴ WHO/UNICEF/UNAIDS/UNFPA. HIV and infant feeding : update based on the technical consultation held on behalf of the Inter-agency Team (IATT) on Prevention of HIV Infections in Pregnant Women, Mothers and their Infants, Geneva, 25-27 October 2006. World Health Organization, Geneva 2007.

2.2. Replacement feeding

OVERHEAD 9/4: Replacement feeding

- **Replacement feeding:** Feeding a baby who is receiving no breast milk, with a diet that provides all the nutrients that the child needs until the age at which the baby can be fed foods eaten by the rest of the family.
- During the first six months of life, replacement feeding should be *only* with a suitable breast-milk substitute. After six months, the suitable breast-milk substitute should be complemented with other foods.

2.3. Questions to consider with replacement feeding

- When discussing the option of replacement feeding with a mother, there are some questions to consider. Ask if replacement feeding is:
 - **Acceptable?:** to the mother, her family and community.
 - **Feasible?:** the mother and family have time, knowledge, skills and means to prepare the replacement feeds correctly at various times a day, everyday.
 - **Affordable?:** taking into account all the costs, including formula, water, fuel, soap, equipments and other needs including, medical expenses in case the child becomes sick from unsafe preparation and feeding practices.
 - **Sustainable?:** there is a continuous supply and reliable system of distribution of all ingredients and products needed for as long as the infant needs it, up to one year or longer.
 - **Safe?:** replacement foods are correctly and hygienically prepared, stored and fed in enough quantities with clean hands using clean utensils, preferably a cup.
- In the case of mothers who are HIV positive, one also needs to discuss the risks and benefits of different infant feeding options. These are outlined in **Handout 9/1** available at the end of this section.

3. Demonstration talk for pregnant women on feeding their babies

THE STORY OF SAM AND SUZI

- Suzi is pregnant. Suzi and Sam were tested and are HIV-positive. They want to know more about breastfeeding and HIV.
- Sam and Suzi are told at the antenatal clinic that there is a talk for pregnant women on infant feeding.
- They decide to attend so they can discuss the choices and make a decision about how to feed their baby.

Feeding your baby: a talk for pregnant women

- Today, we will talk about feeding your baby. The first thing to know is that:
- If a woman is HIV-negative or does not know her HIV status, exclusive breastfeeding is recommended for the first 6 months of the baby's life.
- If a woman is HIV-positive, the HIV infection can pass from the infected mother to her baby during pregnancy, birth and breastfeeding. Let us look at how likely is that risk of transmission.

OVERHEAD 9/5: Twenty babies of mothers with HIV



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- These are 20 babies of women who have all had a test which showed that they are living with HIV. The HIV virus can pass from these women to their babies during pregnancy and birth. About four of these 20 babies are likely to be HIV-infected during pregnancy and birth.⁵
 - If the mother is treated with antiretrovirals, the risk of passing the HIV infection from the mother to the baby is reduced.⁶
 - Some babies born to mothers who are HIV-positive will become HIV-positive if they are breastfed, Up to three babies out of 20 born to women who are HIV-positive may be infected in this way, depending on how and how long they are breastfeeding.⁷
 - Hence, even among women who know they are HIV-positive, only a small number of their infants are likely to be infected through breastfeeding.
 - Most babies will not be infected through breastfeeding. However, given the risk, a way must be found to minimize transmission through breast milk.

 - To reduce the transmission, mothers who are HIV-positive may choose to:
 - ***Exclusively breastfeed:*** Give nothing else except breast milk, not even water, and then stop breastfeeding at six months.
 - Exclusive breastfeeding includes:
 - Express and heat-treat their breast milk to kill the HIV virus before giving it to the baby; or
 - Use breast milk from a woman who is HIV-negative.

 - Alternatively, HIV-positive mothers may decide to:
 - ***Avoid breastfeeding altogether:*** Find a suitable replacement for the breast milk. Replacement feeding is feasible and acceptable, if the family can afford replacement feeding for a period of about a year or more and can prepare the replacement food safely;
 - However, if the baby is not breastfed and replacement feeding is chosen, he/she is more likely to get diarrhoea, chest infections, and other health problems. The family will also need to buy formula to feed the baby, and have clean water and fuel to boil water. Also, a woman who is not breastfeeding may become pregnant again sooner if sexually active. The mother needs to consider these issues when deciding on the best option for herself and the baby.

⁵ The rate of transmission of HIV during pregnancy and delivery is approximately 20-25% without antiretroviral drug treatment.

⁶ Transmission of HIV from mother to infant if the mother is taking long term antiretroviral treatment, has a caesarean section and avoids breastfeeding is less than 2%.

⁷ If there is no intervention to prevent mother-to-child-transmission of HIV, 30-45% of HIV-infected mothers will pass on the virus to their child. Up to about 5-20% of these will be through breastfeeding.

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- ☆ The risk of HIV transmission is highest when the baby is ‘mixed fed’ during the first six months, i.e., when breastfeeding is combined with replacement food (other milk, solid foods or fluids). This practice should be discouraged.
 - Mixed feeding increases the chances of virus passing to the baby.
 - During mixed feeding, the breasts can become engorged and there is an increased risk of infection of the breast.⁸
 - If a woman knows she is HIV-positive during her pregnancy, it is a good time to think and plan on how she will feed her baby. She can talk to her doctor, nurse or HIV counsellor to help her decide the best way to feed her baby in her situation and to support her in carrying out the chosen feeding option.

 - The main points to remember are:
 - If a woman is HIV-negative or does not know her HIV status, exclusive breastfeeding is recommended for the first six months, continuing thereafter with the addition of complementary foods.
 - If a woman is HIV-positive, she should be counselled and helped to decide how to feed the baby, before the baby is born.
 - If breastfeeding, she should breastfeed exclusively for the first six months and change to replacement feeding when acceptable, feasible, affordable, sustainable and safe.
 - The risk of HIV transmission is higher in those who use mixed feeding (breastfeeding together with other foods or fluids) and it should be avoided.
 - Ensure good hygiene and encourage mothers to breastfeed on demand, that is, as often as the baby wants to feed or whenever the mother wants to feed. This will stimulate milk production and keep her breasts from getting swollen.
 - Encourage good breastfeeding technique to prevent sore nipples and breast problems. If these occur, they should be treated promptly.

4. Providing ongoing support to mothers

- When a mother decides to breastfeed, it is important that she receives the support she needs to breastfeed exclusively and to discuss with her how she can carry out her decision by:
 - Getting more information on safer breastfeeding practices; and
 - Eating wisely to build and store nutrients needed for her body and for milk production.

⁸ The infection of the breast or ‘mastitis’ may increase the viral load in breast milk, thus increasing the risk of HIV transmission.

THE STORY OF SAM AND SUZI

- Suzi and Sam decide that exclusive breastfeeding is the best choice for them. The counsellor praises them for thinking about this during pregnancy and for coming to discuss their choice.
- The counsellor gives them some more information on safer breastfeeding practices.
- Suzi and Sam's baby boy is born. Suzi is breastfeeding exclusively. Everything is going well. Suzi is eating wisely, taking some rest and feeding her baby frequently using good breastfeeding practices.
- However, they do have one problem. Sam's mother, Granny, thinks the baby needs water and tea as well as breast milk. She cannot understand why Suzi and Sam are so insistent that the baby only has breast milk.
- Suzi explains to Granny that exclusive breastfeeding is best for babies. The baby gets all he needs from breast milk. He does not need water or tea.
- Granny keeps asking about giving water and other things to the baby. Sam and Suzi are afraid Granny will start giving the baby water and other foods herself.
- Sam and Suzi decide to tell Granny that they are HIV-positive. They do this and explain why it is very important to breastfeed exclusively to reduce the risk of the baby getting the HIV.

- When you discuss infant feeding with a mother who is HIV-positive, also discuss how she will carry out her decision. If she has not disclosed her status, she will have a hard time getting the support she needs to feed her baby. HIV or PMTCT counsellors can help women make a decision about disclosing their HIV status.

5. Transition from exclusive breastfeeding to complementary feeding

- Mothers need to be supported to develop a specific plan that will enable them to minimize risk and discomfort during the transition period.

THE STORY OF SAM AND SUZI

- Suzi breastfeeds exclusively. When little Sam is about five months, she decides she would stop breastfeeding completely and starts giving other foods and fluids to the baby when he is six months old.
- However, if Suzi stops breastfeeding suddenly, she may get engorged breasts and feel ill; her baby will also need another source of food and comfort.
- So she will need to go and discuss her decision to stop breastfeeding with a breastfeeding counsellor to minimize risk and discomfort during this transition.

- ☆ If the mother thinks that she is ready to stop breastfeeding or the child is old enough for doing so, refer mother and her baby to an infant feeding counsellor.

6. Summary of the session

☆ KEY POINT ☆

All mothers with HIV should receive counselling to guide them in choosing infant feeding options most suitable for their situation.

- If a woman is HIV-negative or does not know her HIV status, exclusive breastfeeding is recommended for the first 6 months.
- Women who are tested and shown to be HIV-positive need information and individual counselling to decide which feeding option is the best for them, given their situation.
- Replacement feeding needs to be acceptable, feasible, affordable, sustainable and safe for it to be selected as a choice.
- Mothers need ongoing support and information so they can carry out their infant feeding decisions.
- It is important to encourage mothers to talk to their health care providers to obtain the advice and support they need.

HANDOUT 9/1: Risks and benefits of different infant feeding options

	EXCLUSIVE BREASTFEEDING	REPLACEMENT FEEDING
Risks	<ul style="list-style-type: none"> As long as the baby is breastfed, the risk of passing HIV to the baby exists. Other people may also pressurize the mother to give water, other liquids or foods to the baby while she is breastfeeding. This practice known as '<i>mixed feeding</i>', increases the risk of diarrhoea and other infections. 	<ul style="list-style-type: none"> No risk of transmission of HIV from the mother to the infant. Most of the nutrients her baby needs have already been added to the formula. Other members of her household can be involved in the infant's feeding.
Benefits	<ul style="list-style-type: none"> Breast milk contains all the food the baby needs for the first six months. Breast milk is easy to digest. Does not need water. Breast milk protects the baby from diarrhoea, pneumonia and other infections. Breast milk is free, always available and does not need any special preparation. Breastfeeding creates a bond between a mother and her baby. Exclusive breastfeeding helps mothers recover from childbirth and protects them from getting pregnant again too soon. Exclusive breastfeeding for first few months lowers the risk of transmitting HIV to the infant. 	<ul style="list-style-type: none"> Entails a higher risk of non-HIV infections such as, diarrhoea and chest infections since the infant will not have the protective antibodies obtained from breast milk. The expense of obtaining the appropriate foods for the baby, as well as clean water and fuel. Questions that may be raised by others about the mother's HIV status because she is not breastfeeding.

Session 10: Feeding a child with HIV

Learning objectives

By the end of this session, participants will be able to:

- Understand the importance of optimal infant feeding for growth and development;
- Discuss the nutritional concerns of children with HIV; and
- Make suggestions for feeding a child with HIV and during illness and recovery.

1. Introduction

- All children need adequate nutrition for growth and development. However, HIV-infected children may need special attention to ensure that they receive adequate amounts of food and nutrients.
- Mothers with children infected with HIV therefore, need to be given information and support to ensure that their children get extra energy, as well as protein and all the micronutrients needed for their growth and development.
- Because of the challenges in assessing the HIV status of young children, all HIV- positive mothers need to ensure that their children have enough food intake and nutritional care.
- In this session, we will discuss nutrition concerns for children with HIV.
- The session also includes suggestions for feeding a child who is ill or recovering from an illness.

2. Nutritional concerns for children with HIV

- HIV-infected children are at greater risk of poor growth, common childhood illnesses such as, diarrhoea, chest infections, malaria and malnutrition.
- Factors that may lead to poor growth, frequent illnesses and malnutrition in HIV-positive children include the following:
 - Like adults, HIV-infected children may have difficulties eating due to poor appetite, difficulties in swallowing, nausea and vomiting.

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- Lack of attention to the child at eating times.
 - The type of food given to the child may not be well tolerated by the child.
 - Parents who are ill are less able to implement appropriate feeding practices.
- Because of these factors that may reduce food intake in children with HIV, mothers will need guidance and support for appropriate feeding practices and to ensure the improved food intake of their children during illness and recovery.

3. Feeding a child with HIV

THE STORY OF SAM AND SUZI

- Sam and Suzi's son, little Sam is 18 months old and growing well. His HIV status is known: he has been found to be HIV-negative.
- A neighbour of the family has a daughter Leila, who is two years old. Leila has not met her developmental targets and she is often ill.
- Leila's family is worried that Leila may have HIV although she has not had a test.
- Leila's mother is ill and Leila's father died a year ago.
- Because little Sam is healthy, Leila's mother asks Suzi for help in feeding Leila.

- It is not just **what** type of food that is given that matters, but also **how** the food is given, as well as the overall care of the child.

3.1 Responsive feeding practices

- Suzi may suggest to Leila's mother the different ways of responsive feeding, that she has learned from her health care provider.

OVERHEAD 10/1: Responsive feeding

Responsive feeding includes the following:

- Feeding infants and assisting older children to eat.
- Noticing children's hunger and satiety cues or signs.
- Feeding slowly and patiently with encouragement.
- Trying different foods, textures and methods of encouragement.
- Minimising distractions.
- Ensuring that feeding times are also for learning as well as for showing love and care.

☆ KEY POINT ☆

When feeding a child, respond to his/her cues and signals and feed with care and patience.

3.2 Foods to suggest for young children

- Like adults, all children need a variety of foods, including a staple food, animal food, vegetables and fruits and some high-energy or enriched foods, such as those discussed in the previous sessions.
- Relative to their size, children need more food than adults do. However, young children have small stomachs, so they need more frequent meals.
- Foods to suggest for feeding children may include:
 - Staple foods such as, cereals (rice, wheat, maize, millet), roots (cassava, yams and potatoes), and starchy fruits (plantain and breadfruit) give your baby energy. However, such foods do not contain all the nutrients the child needs and so other foods should be eaten in addition to them.
 - To ensure that children get all the nutrients they need, at each meal select different foods from the different food groups (*see Overhead 3/3*).
 - As the child gets older, increase the variety of foods that he/she eats.
 - Mothers should ensure that older children (one year or older) who are no longer being breastfed, drink enough regular animal milk to meet their growth and developmental needs.
 - Give small, frequent meals. By 24 months, the baby will need three to four main meals (one meal = 1 cup) and two nutritious snacks in between, in addition to milk. For snacking,

encourage finger foods which the child can easily pick up, e.g. sliced fruits or bread with butter.

- Give enriched foods that are full of energy and nutrients. Food can be enriched by adding one to two teaspoons of oil, butter, margarine, milk or groundnuts/sesame paste.
- Give finely flaked fish, eggs, beans, and ground-up nuts, finely cut up meat or other soft and easily digestible foods from the family's meals.
- Feed mashed fruits and vegetables such as, ripe banana, pawpaw, avocado, and pumpkin as frequently as possible.
- Consider the use of fermented, germinated or fortified products.
- If the child is not receiving breast milk or animal foods, they may need a multi-micronutrient supplement with vitamins and minerals.
- Children older than six months need water even when they are drinking milk. Find out if your baby is still thirsty, by offering safe drinking water after eating.
- Do not give the child glucose drinks, sodas and soft (fizzy) drinks. Avoid giving spicy foods to the child as it may reduce the child's appetite for other foods that contain a variety of nutrients.

☆ Children with HIV need extra calories; caregivers of these children need to work on an appropriate meal plan with the health workers and caregivers.

3.3 Meal planning

- Guidelines for discussing appropriate meal planning are provided in **Handout 10/1: 'Sample daily meal plan or children'** and **Worksheet 10/1: 'A daily meal planner for children'** found at the end of this section. The approximate quantities of foods provided in **Handout 10/1** are only intended as a general guide and need not be adhered to strictly.
- A flexible approach based on experience, local preferences and the availability of food is important in ensuring that a wide range of foods are included in planning a variety of daily meal options.
- The meal planning guidance is based on the eight 'eating wisely' guidelines we discussed in **Session 3**. The amount of food given should be based on responsive feeding practices.

4. Feeding a child during illness and recovery

- Very ill children with HIV are at risk of dying and take a longer time to recover with just normal food intake. They need higher intakes of energy and nutrients to recover rapidly.

- However, because of illness they face difficulties in eating and may need more attention in feeding and managing these difficulties as well as in treating severe illness.

OVERHEAD 10/2: Feeding a child who is ill

- Make the child comfortable.
- Be patient and feed slowly.
- Feed small amounts frequently.
- Give foods that the child likes.
- Give a variety of foods and extra fluids.
- Pay attention to the child and make feeding time pleasurable.

OVERHEAD 10/3: Feeding a child during recovery

- Feed an **extra** meal.
 - Give an **extra** amount.
 - Use **extra** rich foods.
 - Feed with **extra** patience.
 - Give **extra** breastfeeds or fluids.
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- Feed the child more frequently than usual and give an **extra** meal.
 - Give **extra** amount of food at each meal if the child's appetite is good.
 - Give foods **extra** rich in energy and/or nutrients such as, enriched porridge.
 - Be **extra** patient in encouraging the child to eat and make him/her comfortable.
 - If breastfeeding, give **extra** breastfeeds.
 - If the child is no longer being breastfed, give **extra** fluids such as, water.

☆ KEY POINT ☆

Feed a child extra food during illness and recovery.

5. Summary of the session

☆ KEY POINTS☆

**When feeding a child, respond to his/her cues and signals and
feed with care and patience.**

Feed a child extra food during illness and recovery.

- If a child is ill frequently, he/she may become malnourished and therefore, be at higher risk of more illness. Like adults, children need to be fed wisely, with a variety of nutritious foods.
- Children recover more quickly from illness and lose less weight if they are helped to eat when they are ill and recovering.
- Care and attention to eating and extra food should be given to children during illness and recovery.
- Mothers should be encouraged to talk to their health workers for other support on feeding children with HIV.

WORKSHEET 10/1: A daily meal planner for children

MEALTIME	EXAMPLES OF FOOD CHOICES	SPECIAL CONSIDERATIONS
Breakfast		
Mid-morning snack		
Lunch		
Mid-afternoon snack		
Supper		

Session 11: Improving access to food

Learning objectives

By the end of this session, participants will be able to:

- Describe how HIV can affect household access to food; and
- Discuss how access to food can be improved for households affected by HIV.

1. Introduction

- Household food security is assured when, at all times, household members have access to sufficient, safe and nutritious food that meets their needs for an active and healthy life.
- Household food security is about:
 - How members of a household **produce** or **acquire** food throughout the year and use household resources, including time and money, to gain access to food;
 - How households **process**⁹, **preserve**¹⁰ or **store** their food to overcome seasonal shortages or improve the quality and safety of their food supply; and
 - How food is **used** and **shared** among the various household members to meet their specific needs.
- HIV can affect access to food by reducing a household's capacity to produce or acquire food. This is because in order to pay for medical care, households are often forced to sell their assets and food reserves, resulting in the loss of land and other productive resources and income needed to acquire food.

⁹ Food processing is the method used to change raw food into edible food. Raw food may need to pass through different steps of processing before consumption. Processing may also be required to make food last longer without spoilage.

¹⁰ Food preservation is the method of handling food in such a way as to stop or slow down spoilage and to prevent food-borne illness while maintaining nutritional quality, texture and flavour. Methods for preserving food include: *drying, smoking, salting, fermentation, heating, bottling, canning, refrigeration and addition of chemical preservatives.*

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- Stigma can also contribute to uneven allocation of food in the household by favouring healthier members of the household and further reducing the access to food of people living with HIV.
 - In the previous sessions, we have talked about the appropriate use of food such as 'eating wisely' and improving food intake. However, it will be difficult for people living with HIV to follow these guidelines if their access to food is limited. They need additional support to help improve their access to food.
 - In this session, we will discuss more about how HIV affects access to food for people living with HIV and their households. We will also discuss various ways of improving access to food. These measures will assist health workers and other caregivers to offer appropriate suggestions on how people living with HIV and their households can improve their access to food in different situations.

2. Effects of HIV on access to food

2.1 Effect of HIV on how households produce or acquire food

- Illness and death in a household can reduce access to food through reduced capacity to:
 - Use land for food production, either because of reduced physical ability to do work on the land (planting, weeding, harvesting) or due to loss of land;
 - Earn money;
 - Go to the market to buy food;
 - Prepare food; and/or
 - Provide care for children, elderly and ill members of the household.
- The amount of time spent caring for an ill person or the psychological pressures in the household may also result in children getting less care. In such a situation, children may be at greater risk of malnutrition, even if they do not have HIV themselves.
- Older children may drop out of school to earn income and help care for ill members of the household. Lack of education and care will also affect children's future since they lack basic education and life skills.
- Widowed women and orphaned children may not be able to stay in the same location or keep on using the land and other resources as they once did. Because of traditional inheritance laws in many communities, widows often lose their entitlements to land when their husbands die.
- Money spent on health care can reduce the amount of money available for food. Savings and food stores, including seed for the next planting season, may be used up and not replaced.

2.2 Effect of HIV on how households process, preserve and store food

- Once food has been planted and harvested, households need to decide how to utilize the food for immediate consumption and to store food for future consumption.
- Many of the methods of food processing and preservation used at home such as, grinding and pounding are time-consuming and labour-intensive. These tasks may not be easily performed by very ill persons or children who have lost their parents/caregivers.

2.3 Effect of HIV on how households use and share the food within the family

- When members of a household eat together, the manner of serving the meal and the distribution of different food items may affect the food intake of different family members. Some practices may result in women and children receiving less food, despite their high nutritional needs.
- Adults who are ill, or children, may not be valued if they are not productive. Therefore, they may not be given the amount and quality of food they need.
- In order to provide people living with HIV with appropriate suggestions for meeting their specific nutritional needs by improving food access and intake, it is important to know how food is prepared and shared among various household members.

3. Improving access to food

- Early diagnosis of HIV will enable improvements to food access that can prolong life and keep the person healthy and productive for a longer period of time.
- Health workers and other support workers need to discuss with people living with HIV and their family members about access to food and eating concerns soon after diagnosis with HIV.
- Health/support workers need to work with the individual or household to assess their food access situation and recommend improvements that are feasible or refer them to other support programmes as appropriate.

OVERHEAD 11/1: What to do to improve access to food for PLHIV and their households***Raising awareness***

Raising awareness about the effects of HIV on access to food will ensure that people living with HIV are not excluded from the community and people know how to support them.

Continuous discussions

Continuous discussions offer an opportunity to share experiences and talk about factors affecting access to food and suggestions to reduce or overcome the problems. All family members, including children need to be involved in discussions about access to food.

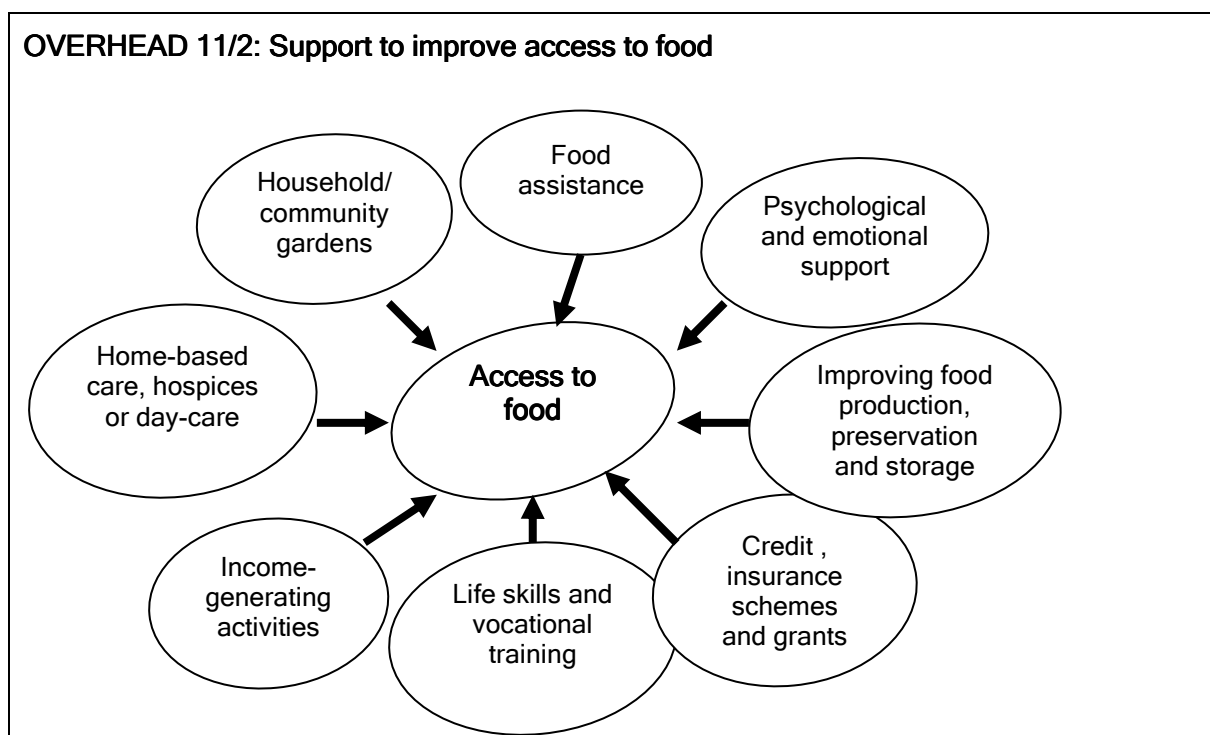
Referral for more support

Not only nutritionist and dieticians play a role in supporting people living with HIV and their households to improve access to food and nutrition. Health workers, agricultural extension workers, community development agents, teachers, religious leaders, self-help groups and other organisations can also contribute and help the household have improved access to food. There may be also government agencies and local organisations providing care and support to people living with HIV and their families to improve their access to food.

For referral, a good starting point would be to make a list of local organisations, institutions, groups and important persons in the community and the support they provide that could contribute to improving access to food.

4. Support for improving access to food

4.1. Types of support/services for improving food access



- Support and services for improving food access may include:
 - Psychological and emotional support for PLHIV in making decisions regarding the disclosure of their HIV status and generally helping them cope with living with the disease.
 - Household or community gardens to ensure access to plenty of affordable fresh foods.
 - Food assistance, as a temporary measure to support adults, pregnant and lactating women and children who may be malnourished.
 - Home-based care, hospices or day-care for ill members of the household or children, if the parents are ill.
 - Income generating activities, credit, insurance schemes and grants to increase the ability to purchase food, improve inputs or diversify income sources.
 - Support with policies and regulations to ensure that the most vulnerable, including widows, orphans and the elderly have access to land, productive resources and/or other resources/income for meeting their nutritional needs, e.g. instituting fair and equitable inheritance rights, and asset protection measures for widows/orphans.

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- Other financial support which could include, meeting the direct costs of school fees and health care costs.
 - Simple and easy food preservation and storage methods to maintain the quality of food in store and extend food stocks, in order to minimize the need for additional food purchases.
 - Life skills and vocational training for children and youth to expand their employment opportunities.

4.1. Types of support/services for improving food access

- Handout 11/1: 'Identifying community support for nutrition and Worksheet 11/1: 'Identifying community support for nutrition with participants' (found at the end of this section) provide guidance for the identification of locally available support and important persons to be contacted for nutrition care and support.

5. Summary of the session

☆ KEY POINT ☆

Use the foods you have available and look for help on how to eat wisely.

- It is important to think about HIV as affecting the *entire* household and not just those who are infected by the disease. Support given to affected households should therefore, address the basic needs of all the members.
- Families, including children, need to be involved in discussions about access to food. Try to start these discussions before the situation becomes critical.
- Health or support workers may be the first to be asked for assistance. It is therefore, very important that they know which organisations in the area provide support and how such support can be obtained.
- Collaboration and linkages between different service providers and sectors such as, health, local welfare services, agriculture, education, as well as water and sanitation services, is essential in order to facilitate the provision of support and assistance for improving families' access to food.

HANDOUT 11/1: Identifying community nutritional support

TYPES OF FOOD-SECURITY/NUTRITION AND LIVELIHOOD SUPPORT	WHO COULD HELP?
Information on eating wisely, including food diversity, improving food intake and keeping food safe.	Nutritionists/dieticians; health workers
Information on food production in a small place that does not require a lot of labour. For example, home/communal gardening and rearing small animals, are good ways of making affordable fresh foods available to a household.	Agricultural extension workers
Information on how to preserve and store food, including information on how to choose processed foods, in case households do not have food to preserve.	Agricultural extension workers
Information on appropriate ways of preparing and sharing meals within the family to ensure fair share of food, especially, for people living with HIV, children, pregnant and lactating women.	Nutritionists, dieticians; health workers
Income-generating activities that can improve a household's ability to buy food and care for a family member who is ill.	Micro-finance organisations
Social support mechanism, including, social grants, self-help, and welfare schemes.	Community development workers; community leaders; self-help/support groups; faith-based groups; social development and welfare agencies
Caring for and educating, vulnerable children in the household, providing them with shelter, food, school fees, life skill and vocational training.	Community development workers, self-help/support groups, faith-based groups, social grant/welfare agencies
Raising awareness about the special needs and concerns of HIV- affected households in order to reduce stigma and discrimination so that people with HIV are not excluded from the community and community members know how to help.	Social and community development workers
Preventing new HIV infections and helping people living with HIV and those who are affected by the disease to live longer, better quality and productive lives.	Health workers
Providing psychological and emotional support, for example, by recognizing people living with HIV and their families as part of the community; supporting those who disclose their status and generally helping them cope with the disease.	Support/care groups; faith-based groups
Helping with the care of an ill person, or with the children in the family if the parents are ill.	Health workers; support/care groups
Providing food to the very ill and orphaned children.	Community development workers; community leaders, support/care groups, social grant/welfare agencies

WORKSHEET 11/1: Identifying community support for nutrition with participants

1. What kinds of support may be needed by individuals or families affected by HIV and AIDS?

2. Which services, organisations, groups, and important persons work with the community to help households grow food and/or earn money?

3. What services, organizations, groups, and important persons help people who are too ill to work?

4. Are there particular groups or people that are excluded from joining or receiving services from some of these sources? (For example, if services are only for men, women, or for families with short-term needs.) Which ones and why?

5. What might prevent a person or family from obtaining assistance from such people, organisations or services?

6. In what ways could these local services and organisations work together to help families acquire adequate food for to meet the nutritional needs of their household members.

7. Is there a need for services or assistance from organisations outside the local community? If so, what types of external services could make a long-term difference to the community?

Session 12: Use of nutritional supplements and herbal remedies

Learning objectives

By the end of this session, participants will be able to:

- Discuss the use of nutritional supplements and herbal remedies; and
- Evaluate alternative practices and products commonly recommended for/used by people living with HIV

1. Introduction

- Many people with HIV use different products, remedies and treatments for HIV. At present there is no evidence of herbal remedies that can cure or treat HIV. However, service providers need to understand and be sensitive to beliefs and the kinds of alternative products used by people living with HIV.
- Some of these nutritional supplements and herbal remedies may be beneficial and some may be harmful to people with HIV. It is important to find out more about the products, note those that are harmful and discuss with people living with HIV, traditional healers or those who promote those products why the use of such products should be discouraged.
- There are many information materials listing supplements and herbal remedies reported to be beneficial. Even though for some people such products could be the only option they have, before using herbal remedies, individuals need to evaluate products and identify those that can be harmful and those that can be of benefit. People living with HIV should be supported in deciding whether a product or treatment might be useful for them as well as cost-effective.
- The purpose of this session is to discuss the different ways of evaluating these products with the aim of identifying those that could be harmful and should be discouraged, while promoting those that are effective and low-cost alternative treatments.
- This will enable service providers to counsel people living with HIV about nutritional supplements and herbal remedies that may be harmful.

2. Categories of products and herbal remedies

2.1 Nutritional supplements

Nutritional supplements may be needed to help meet the nutrient needs of people living with HIV who have lost their appetite/whose food intake has decreased or who are not tolerating their usual diet. Nutritional supplements can help prevent malnutrition including, micronutrient deficiencies. However, such supplements are only additions to the diet and should not be used as a substitute for food. There are two types of nutritional supplements, namely:

Food-based nutritional supplements:

Food-based nutritional supplements are in the form of food items. Such supplements could be given to people living with HIV whose food intake is inadequate.¹¹

Example: Replacing solid food with fluids for persons who are unable to eat but able to drink and/or for those with limited food access. (Contact your local Ministry of Health or nutritionist for more information).

Such food-based nutritional supplements could also be made at home and are usually convenient to prepare. However, especially if they are intended as the total food intake of a patient for more than a few days, their use should be discussed with a dietician, nurse or doctor.

Nutrient supplements:

Nutrient supplements are vitamin and mineral products in the form of tablets, pills or liquids. Such products can contain a single vitamin or mineral or a combination of two or more nutrients, commonly known as **multi-vitamins** or **multi-minerals**.

Nutrient supplements are often not easily available; they are expensive and leave less money for food. A mixed diet should provide enough of these vitamins and minerals. It would therefore, be better to provide a good mixed diet including, animal products, fruits and vegetables whenever possible, rather than buying supplements.

¹¹ Discuss examples of nutritional supplements that are used locally. Often, these are powders added to milk or other drinks and used any time people are not eating well.

In cases where the food intake of people living with HIV is very low, multi-vitamin and multi-mineral supplements can help to meet their increased nutritional requirements. The following guidelines should be adhered to:

- Seek advice from a dietician, nurse or doctor before recommending supplements to people with HIV, in order to get the best value for money.
- Always take vitamin pills on a full stomach. Be consistent and take them regularly.
- It is often more practical and cheaper to take a combined product (multivitamin and mineral supplements) rather than several pills containing different vitamins and minerals, as people usually have more than one deficiency.
- However, iron supplements may be a problem for people with HIV, as they can increase the activity of some bacteria. Supplements that do not contain iron may therefore be better.
- Take supplementation according to the advice on the label. More is not better. Taking a high dose is a waste, can cause nausea, vomiting, decreased appetite, liver and kidney problems; it may also interfere with the immune defence system

2.2 Herbal treatments and remedies

Traditional and herbal remedies promoted as treatment

Herbal remedies present alternatives to formal biomedical practices, and are among the treatments often offered by traditional healers. People living with HIV should be advised to always discuss other treatments such as the use of herbal remedies with health workers, doctors or nutritionists.

People living with HIV should be made aware of herbal remedies that could be harmful to their health. Health workers should explain to people living with HIV, traditional healers and others offering such treatments, why the use of such remedies should be discouraged.

Herbs and spices

Herbs and spices used in food during preparation should be differentiated from traditional herbal remedies. Some of the benefits of herbs and spices which include, **improved digestion, stimulation of appetite** and **food preservation** are general and not specific to HIV.

As the effects of such herbs and spices may not be the same for all people, they should be used in moderate amounts. Excessive use may cause problems and have a toxic effect. Moreover, it should be emphasised the function of such herbs and spices will not be increased by taking them in excess.

More evidence is needed because very little is known about the interactions between herbs and the medication people living with HIV might be taking. Supplements, herbs and spices are not an alternative to eating wisely. They should be used as additions to food eaten.

☆ KEY POINT ☆

Nothing can replace eating wisely.

3. Evaluating products' claims for HIV

- No secret cures or therapies for HIV exist. To help people living with HIV make decisions, consider and determine whether the herbal remedy is:
 - Helpful or beneficial: if there is independent scientific evidence to support it;¹²
 - Neutral: if there is a strong belief that it is neither helpful nor harmful; or
 - Harmful or dangerous.
- You may ask for opinions from different people who have nothing to gain.
- Guiding questions that may help in evaluating the safety of herbal remedies and products are provided in **Handout 12/1** at the end of this section.
- Communicating with the people with HIV about nutritional supplements and herbal remedies is essential. The uses of questions like: "What else are you using to take care of your health?" is recommended to help find out the nutritional supplements and herbal remedies that the person may be taking.

¹² 'Independent scientific evidence' on the effectiveness of a product is yielded by independent studies done by someone other than the company producing/promoting the product.

4. 'Warning flags'

OVERHEAD 12/2: Warning flags

- "This is *the* cure'; "it gives miracle results".
- "Do not use any other treatments".
- "This doctor (product/treatment) is the *only* one which can help you".
- "It costs a lot of money".
- "Personal accounts are the main/most reliable source of information on results".
- "The ingredients are a secret".

☆ KEY POINT ☆

**Do not believe everything you hear.
Discuss the benefits and risks of all alternative practices and products.**

5. Summary of the session

☆ KEY POINTS ☆

Nothing can replace eating wisely.

**Do not believe everything you hear.
Discuss the benefits and risks of all alternative practices and products.**

- At present, there is no evidence that herbal remedies can cure or treat HIV.
- Communicating with people living with HIV about nutritional supplements and herbal remedies is essential to ensure that they are aware of herbal remedies that could be harmful to their health.
- You can use your communication skills to ask open ended-questions, reflect and clarify, accept what the person is saying, give some information and/or offer suggestions.
- People living with HIV should be supported in evaluating whether a product or treatment may be **helpful/beneficial**, whether there is a strong belief that it is **neutral** or **harmful/dangerous** for them.
- Seek advice from a dietician, nurse or doctor before recommending supplements, so as to ensure the best value for money.

- Traditional healers and religious leaders are esteemed and trusted in most communities; work with them to find the best way to share information on herbal remedies and products that could be harmful for people with HIV.

HANDOUT 12/1: Questions that may help in evaluating herbal remedies and other products

If the answer to any of these questions is 'yes' or 'do not know', then the product may be harmful to the health of individuals.

QUESTIONS	YES	NO	DO NOT KNOW
Does the product or herb contain substances in amounts that could be harmful? (<i>ask nutritionist to help you read the labels</i>)			
Does the product or herb have harmful interactions with other foods and any other medication that you are taking?			
Does the product or therapy replace or delay seeking health care and treatment that is generally regarded as effective?			
Does the product or therapy promote or emphasize a particular product or nutrient?			
Does the product provide enough energy and protein along with a variety of other nutrients? (<i>ask nutritionist to help you read the labels</i>)			
Do you have to pay a lot of money for the product or therapy?			
Does buying this product reduce money available for buying food?			
Does use of the remedy reduce your food intake?			

Session 13: Course review and action planning

Learning objectives

By the end of this session, participants will be able to:

- List key points about nutrition, care and support to share with people living with HIV;
- Discuss the importance of caring for the caregiver;
- Outline ways in which the course information can be put into practice; and
- Discuss any questions regarding nutrition, care and support for people living with HIV.

1. Introduction to the session

- Knowledge and skills can help a caregiver to feel more confident. The information provided in this course can enhance the care and support caregivers offer to people living with HIV and their families. Many people are able to do something about the foods they eat. Caregivers can thus also be motivated by the positive results that can be attained by putting the knowledge and skills acquired through this course into practice.

THE STORY OF SAM AND SUZI

- We have followed Sam and Suzi through a few years of their lives. Since they found out that they were HIV-positive, they have faced many challenges. Eating wisely has helped them to keep well for longer.
 - Suzi has had a lot of contact over the last few years with support services for people living with HIV. One of these service providers asks Suzi if she would like to work with them as a support worker.
- In this session, we will look at how Suzi learns to be a support worker. In doing so we will also revise the key points you have learnt throughout the course.

2. Review of communication skills

THE STORY OF SAM AND SUZI

Suzi becomes a support worker

- Suzi likes the idea of becoming a support worker and starts the training. Part of the training is learning about communication skills.
- Suzi knows from her own experience that it helps to know that someone cares enough about you to listen attentively and talk to you about food and eating.
- Using such listening and talking skills is one of the key points we have discussed.

☆ KEY POINT ☆

When you ensure physical comfort, listen and talk about food and eating, you show that you care about the person.

OVERHEAD 2/2: Six listening and learning skills

1. Using helpful non-verbal communication;
2. Using responses/gestures which show interest;
3. Empathising;
4. Asking open-ended questions;
5. Reflecting back what the client says; and
6. Avoiding words which sound judgmental.

OVERHEAD 2/3: Six skills for building confidence and giving support

1. Accepting what a client thinks and feels;
2. Recognising and praising what a client is doing right;
3. Giving practical help;
4. Giving a little, relevant information which can be of immediate use to the client;
5. Using simple language; and
6. Making a few suggestions, rather than giving commands.

3. Review of key points**THE STORY OF SAM AND SUZI****Suzi works as a support worker**

- Suzi attended this course on nutritional care and support for people living with HIV. When Suzi works with families affected by HIV, she tells them how important nutrition can be to their quality of life.
- Suzi sees clients of various kinds and in various settings: individual adults, children, families, groups in the community, at the hospital and at home.
- In different settings and situations, Suzi may give more emphasis to some messages, depending on the needs of those with whom she works.

☆ KEY POINTS ☆

- ☆ A well-nourished person has a stronger body to fight infection and cope with HIV.
- ☆ When you ensure physical comfort, listen and talk about food and eating, you show that you care about the person.
- ☆ When you assure confidentiality and give clients support by praising their positive practices related to food and eating, you help build their self-confidence.
- ☆ Aim to eat a wide variety of foods, at each meal, everyday.
- ☆ Follow the five key steps to safer foods and stopping germs from making you and those around you ill.
- ☆ Eat well and wisely during illness and when recovering from an illness.
- ☆ When symptoms start, increase energy intake to reduce or prevent weight loss.
- ☆ Physical activity can help you feel better.
- ☆ Understanding medication side-effects helps careful selection of foods for preparing nutritious meals and a good nutrition plan.
- ☆ ART works better in people who have good nutritional practices.
- ☆ Eating wisely during pregnancy helps the mother and the baby to stay healthy.
- ☆ Eating wisely during breastfeeding helps the mother and the baby to stay healthy.
- ☆ All mothers with HIV should receive counselling to guide them in choosing infant feeding options suitable for their situation.
- ☆ When feeding a child, respond to his/her cues and signals and feed with care and patience.
- ☆ Feed a child extra food during illness and recovery.
- ☆ Use the foods you have available and look for help on how to eat wisely.
- ☆ Nothing can replace eating wisely.
- ☆ Do not believe everything you hear. Discuss the benefits and risks of all alternative practices and products.
- ☆ Caregivers need care too.

4. Action planning

How can I use the information and skills from this course in my work?

5. Care for caregivers

THE STORY OF SAM AND SUZI

- The organisation that Suzi works with is aware that people who are providing care and support need to be cared for themselves. Caregivers include, nurses, doctors, peer support workers, dieticians, counsellors, as well as families and neighbours.

☆ KEY POINT ☆

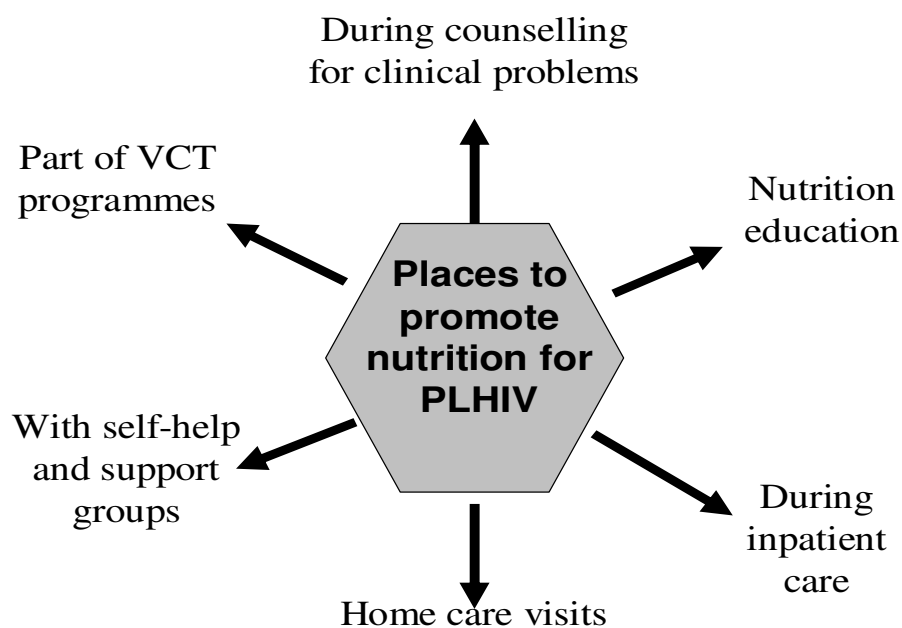
Caregivers need care too.

- It can be difficult for support workers to talk to others about eating wisely if they are short of food themselves. Some organisations provide food parcels for their workers.
- Support from other caregivers in the same situation and being able to discuss their feelings can also help.
- Shared care, respite services and ensuring that caregivers have some time for themselves can give caregivers a chance to rest.

6. Summary of the session

- Nutritional care and support can make a difference to the lives of people living with HIV and their families. The food they eat may be one area that people are likely to have some control over.
- Nutrition care and support are not just short-term actions; they are **ongoing** activities, requiring continuous reflection, dialogue and reinforcement, depending on the needs of those with whom you are working.
- People living with HIV need the support of their families, communities and those who care for them to carry out some of the recommended practices.

OVERHEAD 13/1: Places to promote nutrition for PLHIV



You can use the information from this course in many areas. You can use the knowledge and skills you have acquired with those you assist, to share with colleagues, your own families and communities.

Closing session

Review of course aims

OVERHEAD OPENING/1: Course aims

- The aim of this course is to assist **community level health service providers** and **other extension workers** to:
 - Improve their knowledge and skills on nutrition care and support for people living with HIV;
 - Understand the importance of using good communication skills when providing nutrition care and support for people living with HIV; and
 - Be able to effectively transfer the key nutrition messages to people with HIV, their family members and their community.

Annex 1: The story of Sam and Suzi

Sam and Suzi, a young couple, recently diagnosed to be both HIV-positive who are expecting their first baby. We first meet Sam and Suzi in **Session 2: Introduction to communication skills**, when they have come for basic nutrition counselling following the diagnosis. The story of Sam and Suzi is used to introduce us to three different styles of interacting as they meet with three different counsellors to discuss about nutrition. This helps to illustrate the effect of counselling styles on the patterns of interaction between client and the counsellor. We then meet Sam and Suzi again in **Session 3: Eating wisely**, when they attend the *'Eating wisely'* talk.

Later in the course, the story of Sam and Suzi is used to introduce nutrition care and support for patients at different stages of the disease, in different physiological states (pregnancy, breastfeeding), and at different ages (infants, children). In **Session 5: Improving food intake**, Sam starts to experience some opportunistic infections. He first had tuberculosis that was treated, followed by bouts of diarrhoea and sore mouth which affect his food intake. Sam seeks for more nutrition counselling and support. He looks for suggestions that might help him with his new problems. The story introduces us to circumstances when you will need to give suggestions for improving food intake during a counselling session. In the story, Sam tries some of the suggestions he is given. He starts eating better and his strength also improves. He is now able to take regular walks with his family.

In **Session 6: Preventing weight loss and promoting physical activities**, the story of Sam and Suzi is used to introduce the management of weight concerns, specifically, weight loss as a consequence of frequent opportunistic infections. Because of these bouts of the opportunistic infections, Sam's weight is lower than it was a few months ago, as illustrated in **Picture 2**. A role-play of Sam and counsellor is used to illustrate counselling skills that can be used at this stage, as well as the possible reactions of a client. Sam and the support worker talk more about Sam's weight loss and how he can monitor his weight at home where there is no weighing scale (e.g., by checking whether his clothes are getting loose and paying closer attention to the comments of people around him about his weight). The counsellor reminds Sam that it is essential to visit the clinic regularly and to consult with the support worker when he notices signs of weight loss. The health/nutrition worker informs Sam about different ways of preventing weight loss, regaining lost weight and the importance of physical activity. They also talk about simple physical activities that Sam could do regularly.

In **session 7: Nutrition care and support for people on ART**, the story of Sam and Suzi is used to illustrate nutrition counselling at the advanced stages of HIV infection (AIDS) and particularly, when

AIDS patients start antiretroviral treatment. We meet Sam at the stage where he has become very weak and his health has generally deteriorated. His doctor recommends several tests and some drugs. Based on the test results, the doctor needs to start Sam on ART. Sam is prepared and enrolled for ART (a combination of three drugs: d4T + 3TC + EFV). A role-play between the health/nutrition worker and Sam is used to illustrate nutrition counselling skills needed to interact with a person initiating ART treatment. The role-play emphasises the interaction between food and medication.

In *Session 8: Nutrition care and support during pregnancy and breastfeeding*, we meet Sam and Suzi during the *'Eating wisely during pregnancy'* demonstration talk. We meet them again in *Session 9: Infant feeding options for HIV positive mothers* when they attend another talk for pregnant women on infant feeding aimed at helping them make a decision about how to feed their baby. After the talk, they decide that exclusive breastfeeding is the best choice for them. The counsellor praises them for thinking about infant feeding options during pregnancy and for coming to discuss it (demonstrating the communication skill of praising good practice). The counsellor then refers them to a lactation counsellor, for more information on safer breastfeeding practices.

In *Session 9* we also use the story of Sam and Suzi to introduce some of the common barriers that HIV-positive women are faced with when they choose exclusive breastfeeding for their infants. The importance of disclosing one's HIV status at this stage and during the transition period when mothers need to stop breastfeeding is emphasised as follows.

Suzi continues to breastfeed exclusively. Everything goes well; she is eating wisely, taking some rest and feeding her baby frequently using good breastfeeding practices. However, the couple do have one problem. Sam's mother, Granny, thinks the baby needs water and tea as well as breast milk, as illustrated in **Picture 3** of Sam and Suzi.

The grandmother cannot understand why Suzi and Sam are so insistent that the baby only has breast milk. Suzi explains to Granny that exclusive breastfeeding is best for babies. The baby gets all he needs from breast milk. He does not need water or tea. Granny keeps asking about giving water and other things to the baby. Sam and Suzi are afraid Granny will start giving the baby water and other foods herself. Sam and Suzi decide to tell Granny that they are HIV-positive and explain why it is very important to breastfeed exclusively to reduce the risk of the baby getting the HIV. Granny is upset that they did not tell her sooner that they had HIV, but she is very supportive.

Suzi breastfeeds exclusively little Sam and wants to stop breastfeeding completely and start giving other foods and fluids to the baby when he is six months. However, if Suzi stops breastfeeding

suddenly; she may get engorged breasts, feel ill and her baby will need another source of food and comfort. Suzi will need to discuss her decision to stop breastfeeding with a breastfeeding counsellor to minimise any health risks and discomfort during this transition.

In ***Session 11: Feeding a child with HIV***, we use the story of Sam and Suzi to illustrate nutritional management during illness and recovery, especially for children who have frequent infections that may be due to HIV. Since Sam and Suzi took good care of themselves and the baby, Little Sam is growing well and is found to be HIV-negative when he is tested at 18 months. We therefore introduce a new family, Sam and Suzi's neighbours. The family have a daughter Leila, who is two years old. Leila has not met her developmental targets and she is often ill. Leila's family is worried that Leila may have HIV although she has not been tested. Leila's mother is ill and Leila's father died a year ago. Because Little Sam is healthy, Leila's mother asks Suzi for help in feeding Leila. Suzi, recalls some of the lessons she learnt from the counsellors such as, 'responsive feeding' and shares this information and some meal planning practices she uses for Little Sam with Leila's mother.

Finally, in ***Session 13: Review of the course***, we use the story of Sam and Suzi to introduce the concept of nutrition care and support for caregivers. Since Suzi now has good knowledge and experience about nutrition and HIV, a community-based organisation employs her as a support worker. The organisation that Suzi works with is aware that people who are providing care and support need to be cared for themselves. Caregivers may be nurses, peer support workers, doctors, dieticians, counsellors, families or neighbours. Course participants can use this story to try and identify the various types of support/services that can be given to support workers/caregivers.

Annex 2: Nutritional care and support focus at different stages of HIV and AIDS

STAGES	SIGNS	NUTRITON CARE AND SUPPORT
Asymptomatic	No physical sign or symptoms	<ul style="list-style-type: none"> ▪ Education about the importance of nutrition for people living with HIV. ▪ Eating a variety of foods. ▪ Storing and preparing foods safely.
Symptomatic (acute)	Acute infections; fever; night sweats; fatigue; headache; loss of appetite; loss of <10% of body weight	<ul style="list-style-type: none"> ▪ Continuing with earlier activities. ▪ Addressing food and eating-related symptoms. ▪ Preventing weight loss. ▪ Ensuring sufficient access to food.
Symptomatic (chronic)/AIDS	Chronic infections; prolonged fever; diarrhoea; TB; pneumonia; loss of >10% of body weight	<ul style="list-style-type: none"> ▪ Continuing with earlier activities. ▪ Providing adequate energy to reduce effects of malnutrition ▪ Management of drug-nutrient interactions.
Palliative care	Severe wasting syndrome	<ul style="list-style-type: none"> ▪ Alleviating symptoms and providing support to the client and caregiver.

Annex 3: Nutritional requirements for people living with HIV and AIDS ¹³

The nutritional requirements of people living with HIV are influenced by several factors, including age, physiological changes (pregnant, breastfeeding), physical activity, clinical stages of health, metabolism and viral load count.

	DAILY ENERGY REQUIREMENTS	TRANSLATION INTO FOOD INTAKE
Adults: HIV-negative/healthy	1999 to 2580 kilocalories	<ul style="list-style-type: none"> ▪ Education about the importance of nutrition for PLHIV. ▪ Eating a variety of foods. ▪ Storing and preparing foods safely.
Adults: HIV-positive (early/asymptomatic stage)	10% more energy (an additional 210 kilocalories)	<ul style="list-style-type: none"> ▪ 1 additional fistful of maize meal or 1 cup of porridge taken during the course of the daily.
Adults: HIV-positive (late/symptomatic stage)	20-30% more energy (an additional 420 to 630 kilocalories)	<ul style="list-style-type: none"> ▪ 2 to 3 additional fistfuls of maize meal or 2 to 3 cups of porridge taken during the course of the day.
Children: HIV-positive	<ul style="list-style-type: none"> ▪ Ensure appropriate energy intake, if asymptomatic ▪ 20-30% more energy if symptomatic, with poor weight gain ▪ 50-100% for those severely malnourished 	<ul style="list-style-type: none"> ▪ Alleviating symptoms and providing support to the client and caregiver.

Energy

The requirements for adults also apply to pregnant women and women who are breastfeeding.

Protein

According to WHO, there is insufficient evidence to support an increase in protein requirement for people living with HIV over and above the normal requirement for health (12% to 15% of total energy, i.e. 50 to 80 grams of protein daily or 1 gram per kilogram of ideal body weight).

¹³ Nutrient Requirements for People Living with HIV/AIDS. Report of a technical consultation, World Health Organization, Geneva, 13-15 May, 2003.

Fat

No evidence that total fat needs are increased above normal requirements for health. However, special advice regarding fat intake might be required for individuals undergoing antiretroviral therapy or experiencing persistent diarrhoea.

Vitamins and minerals

- Adequate intake of vitamins and minerals is best achieved through a well-balanced diet. HIV-infected adults and children should have healthy diets that ensure micronutrient intakes at recommended levels.
- However, dietary intake of vitamins and minerals may not be sufficient to correct nutritional deficiencies in HIV-infected individuals. In settings where recommended intakes cannot be achieved, multiple micronutrient supplements may be needed for high-risk groups such as, pregnant and lactating women.
- Nevertheless, there is evidence that some supplements e.g., vitamins, zinc, and iron, can produce adverse outcomes in HIV-infected people.
- For HIV-infected children (5-59 months old) living in resource-limited settings, periodic (every 4-6 months) vitamin A supplementation is recommended (10 000 IU for infants who are 6-12 months old) and 200 000 IU for children older than 12 months).
- There is no data on the efficacy of other micronutrient supplements for HIV-infected children.
- To prevent anaemia in pregnant women, daily iron-folic acid supplementation (400 µg of folic acid and 60 mg of iron) during the first 6 months of pregnancy is recommended; taking this supplementation twice daily is recommended for treating severe anaemia. This applies to both pregnant women living with HIV as well as those who are not infected.
- Daily vitamin A intake by HIV-infected women during pregnancy and lactation should not exceed the recommended levels. A single high-dose of vitamin A (200 000 IU) should be given to women as soon as possible after delivery, but no later than six weeks after delivery.

Annex 4: Sources of further information

Courses that could complement this course

- WHO/UNICEF Infant and Young Child Feeding Counselling: An integrated course.
- WHO/UNICEF/USAID HIV and infant feeding counselling tools.
- WHO/UNICEF Breastfeeding Counselling: A training course.
- WHO Complementary Feeding Counselling: A training course

Other information sources

- <http://www.who.int/nutrition/en/> or
- http://www.who.int/child_adolescent_health/en/
- *Breastfeeding and replacement feeding practices in the context of mother-to-child transmission of HIV An assessment tool for research.* Geneva, World Health Organization, 2001.
http://www.who.int/child_adolescent_health/documents/cah_01_21/en/index.html
- *Complementary feeding of young children in developing countries: a review of current scientific knowledge.* Geneva, World Health Organization, 1998.
http://www.who.int/nutrition/publications/infantfeeding/WHO_NUT_98.1/en/
- *Complementary feeding: family foods for breastfed children.* Geneva, World Health Organization, 1998.
http://www.who.int/nutrition/publications/infantfeeding/WHO_NHD_00.1/en/index.html
- *Guiding Principles for Complementary Feeding of the Breastfed Child.* PAHO/WHO, Division of Health Promotion and Protection/Food and Nutrition Program, Washington, DC, USA, 2003.
<http://www.who.int/nutrition/publications/infantfeeding/a85622/en/index.html>
- FAO/WHO. *Living well with HIV/AIDS – A manual on nutritional care and support for people living with HIV/AIDS.* Rome, Food and Agriculture Organization, 2002.
<http://www.fao.org/DOCREP/005/Y4168E/Y4168E00.htm>
- *Health Care and HIV: Nutritional Guide for Providers and Clients.* HIV/AIDS Bureau, US Department of Health and Human Services, 2002.
<http://www.aidsetc.org/aidsetc?page=etres-display&resource=etres-193>
- *HIV/AIDS: A Guide For Nutritional Care and Support.* 2nd Edition. Food and Nutrition Technical Assistance Project. Academy for Educational Development, Washington DC, 2004.
<http://www.fantaproject.org/publications/HIVguide.shtml>
- *HIV and infant feeding. A guide for health care managers and supervisors.* Geneva, World Health Organization, 2003.
<http://www.who.int/nutrition/publications/hivaids/9241591234/en/index.html>
- *HIV and Infant Feeding: Framework for Priority Action,* Geneva, World Health Organization, 2003.
<http://www.who.int/nutrition/publications/hivaids/9241590777/en/index.html>

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- *HIV and infant feeding. Guidelines for decision-makers.* Geneva, World Health Organization, 2003.
<http://www.who.int/nutrition/publications/hivaids/9241591226/en/index.html>
 - *HIV transmission through breastfeeding. A review of available evidence - update 2007,* Geneva, World Health Organization, 2008.
<http://www.who.int/nutrition/publications/hivaids/9789241596596/en/index.html>
 - *Mastitis. Causes and Management.* Geneva, World Health Organization, 2000.
http://www.who.int/child_adolescent_health/documents/fch_cah_00_13/en/
 - *New data on the prevention of mother-to-child transmission of HIV and their policy implications.* Conclusion and recommendations of WHO Technical Consultation on behalf of the UNFPA/UNICEF/UNAIDS Interagency Task Team on Mother-to-Child Transmission of HIV, Geneva, World Health Organization, October 2000.
http://www.who.int/reproductivehealth/publications/rtis/RHR_01_28/en/
 - *Nutrient requirements for people living with HIV/AIDS. Report of a technical consultation, 13–15 May 2003.* Geneva, World Health Organization, 2003.
<http://www.who.int/nutrition/publications/hivaids/9241591196/en/index.html>
 - *Rapid advice: revised WHO principles and recommendations on infant feeding in the context of HIV - November 2009.* Geneva, World Health Organization, 2009.
http://www.who.int/child_adolescent_health/documents/9789241598873/en/index.html
- Sowing Seeds of Hunger* (video, 26 min.). FAO, 2003. *Course organizers can request the video from FAO Headquarters (mail request to enrique.yeves@fao.org) or through the FAO Representative.*
- The Africa Network for the Care of children Affected by AIDS (ANECCA). *Handbook on paediatric AIDS in Africa.* Regional Centre of Quality Health Care, Kampala, Uganda, revised, July 2006.
<http://www.fhi.org/en/HIVAIDS/pub/guide/mans1.htm>
 - UNAIDS. *AIDS: Palliative Care.* UNAIDS Technical Update (Best Practice Collection). Geneva, UNAIDS, October 2000.
<http://www.unaids.org/en/PolicyAndPractice/CareAndSupport/PalliativeCare/>
 - UNAIDS. *Ancient Remedies, New Disease – Involving traditional healers in increasing access to AIDS care and prevention in East Africa.* UNAIDS Case Study (Best Practice Collection). Geneva, UNAIDS, June 2002.
http://search.unaids.org/Preview.aspx?d=en&u=Publications/IRC-pub02/jc761-ancientremedies_en.pdf&p=%2fcgibin%2fMsmGo.exe%3fgrab_id%3d0%26page_id%3d4707%26query%3dancient%2520remedies%26hiword%3dancient%2520remedies%2520%26PV%3d1
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Good nutrition is a fundamental part of caring for people living with HIV/AIDS. Good nutrition translated into a balanced diet is a positive way to respond to this illness, and it helps people live better, longer and more comfortable lives.

This short course, which takes into account recent findings, aims to provide caregivers with practical knowledge about nutrition care and support for people living with HIV/AIDS. The course also seeks to sharpen caregivers communication skills to enable them to provide appropriate guidance in choosing the right foods, and in preparing them appetizingly and safely for people who are ill or with poor appetite.

The course consists of a package of fifteen sessions that take about 12 to 15 hours to complete using a variety of classic teaching methods, including lectures, demonstrations, role-play and exercises. In addition to sessions on basic nutrition and communication skills, topics include feeding of the child living with HIV, the role of medicines and myths in nutritional care, and discussion on how to increase access to food.

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